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Environmental Protection
Agency

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For Immediate Release: July 18, 1994

No: 94-M168

EPA SAYS USS LEAD MUST STABILIZE EAST CHICAGO SITE

U.S. Environmental Protection Agency (EPA) Region 5 today told USS Lead Refinery, Inc., that additional work is needed at the company's East Chicago, IN, site to stabilize lead-contaminated soils that could be blown into the air by wind or be carried into nearby waterways or groundwater by rain.

The site is under an EPA order that requires the cleanup of lead-contaminated soils. A recent survey showed high lead concentrations at the site. Aerial photography of the site shows that these highly contaminated soils are now exposed to wind and water more than ever because the source areas have been uncovered by clearing and demolition.

EPA believes these activities, combined with high levels of lead in the topsoil, pose a potential threat to human health and the environment.

USS Lead has 30 days after receiving the request to meet with EPA and discuss the additional work needed.

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U.S.S. Lead Refinery, Inc.
East Chicago, Indiana

INTRODUCTION

This Statement of Basis (SB) explains a proposed partial remedy for hazardous waste contamination at U.S.S. Lead Refinery, Inc. (USS Lead), a hazardous waste management facility located in East Chicago, Indiana. The proposed partial remedy will include the United States Environmental Protection Agency's (U.S. EPA) designation of a Corrective Action Management Unit (CAMU) at the facility. A CAMU is an area within a facility that is designated for the management of remediation wastes. This remedy and CAMU will be implemented as part of the Interim Stabilization Measures (ISMs) being conducted at the facility, pursuant to an Administrative Order on Consent between USS Lead and U.S. EPA (U.S. EPA Docket No. V-W-001-94).

The proposed partial remedy consists of the removal, consolidation, and on-site disposal of metal contaminant sources and the most contaminated soils and sediments from the facility. Under this remedy, on-site disposal will take place in the designated CAMU at the facility. This SB includes a description of the proposed partial remedy, a description of the area designated as a CAMU, summaries of alternative remedies, and a discussion of the factors used to support the creation of the CAMU. U.S. EPA will select a partial remedy for the facility only after the public comment period has ended and the information provided by the public during this period has been reviewed and comments considered.

This SB is being issued by U.S. EPA as part of its public participation responsibilities for designation of a CAMU under the Resource Conservation and Recovery Act (RCRA). The document summarizes information that can be found in greater detail in the IMS Workplan and other pertinent documents contained in the Administrative Record for this facility. U.S. EPA encourages the public to review these documents in order to gain a more comprehensive understanding of the facility and the RCRA activities that have been conducted.

U.S. EPA may modify the proposed partial remedy or select another partial remedy based on new information or public comments. Therefore, the public is encouraged to review and comment on all alternatives in order to become involved in the remedy selection process. If a public meeting is requested, U.S. EPA will publish a newspaper notice of the meeting prior to holding the meeting.

A. PROPOSED PARTIAL REMEDY

The U.S. EPA is proposing to use the following partial remedy to address contaminant sources (lead slag and lead-battery case chips) and the most contaminated soils and sediments (those with the highest concentrations of metals, especially lead) at the USS Lead facility:

- Remove remaining slag from slag pile and conduct on-site disposal of these remedial wastes in a Corrective Action Management Unit (CAMU).

- Remove remaining battery chips from pre-existing storage area and conduct on-site disposal of these remedial wastes in a CAMU.

- Remove contaminated soils from contaminated areas adjacent to the slag pile and the pre-existing storage area for battery chips and conduct on-site disposal of these remedial wastes in a CAMU.

- Characterize contaminated sediments within the Outfall Canal and remediate the upper 1/8th of the Outfall Canal by conducting removal and on-site disposal in a CAMU of the highest sediment contamination.

- Remediate the remainder of the Outfall Canal, lower 7/8th, by conducting removal and on-site disposal in a CAMU of the highest sediment contamination, if funds are available.

- Stabilize and/or remediate contamination from hazardous waste management units in a CAMU, including two calcium sulfate waste piles (hazardous waste D008) and one baghouse flue dust waste pile (hazardous waste K069).

- Plug and/or cap sewer and water lines from the former process area of the facility.

A more detailed discussion of the proposed partial remedy is included below.

B. FACILITY BACKGROUND

The USS Lead facility is located at 5300 Kennedy Avenue, East Chicago, Indiana. The facility consists of 79 acres, with facility operations occupying approximately 25 acres (see Attachments A and B). This 25-acre area is herein designated "the operational area". Of the total area of the facility, 39.8 acres are jurisdictional wetlands, largely located in the southern portion of the facility adjacent to the Grand Calumet River (see Attachment C). The operational area is, or was at one time, covered by the facility's buildings or fill from their operations (filled areas). Some of the jurisdictional wetlands are also located in filled areas. The nearest residences are located a half-mile to the north.

The USS Lead facility is a former secondary lead smelter and reprocessor of lead-acid batteries. The facility was constructed in the early 1900s by the Delamar Copper Refinery Company to produce copper. In 1920, the property was purchased by U.S. Smelting, Refining, and Mining, and later by USS Lead. At the time, lead refining operations were conducted at the facility.

Between 1972 and 1973, the facility was converted to a secondary lead smelter, which recovered lead from automotive batteries. On or after 1980, USS Lead managed, treated, stored, and disposed of hazardous waste subject to interim status requirements under hazardous waste management regulations.

On November 8, 1985, interim status terminated for the facility, and the facility's hazardous waste management units became subject to closure under

the Indiana Department of Environmental Management (IDEM) regulations. These hazardous waste management units included two calcium sulfate sludge waste piles and a baghouse flue dust waste pile. Secondary lead recovery operations ceased in December 1985. Major lead recovery waste producing operations prior to December 1985 included: (1) battery breaking; (2) sulfuric acid treatment; (3) baghouse flue dust collection; and (4) blast furnace slag disposal.

(1) The battery breaking operations included breaking the batteries by cutting off the top of the battery, and removing the lead plates. Between September 1980 and July 1981, cut battery cases, tops, and residual lead plates were stock-piled at the facility.

(2) Sulfuric acid was collected in the storage tanks then transferred into a large neutralization tank where lime was added to produce D008 calcium sulfate sludge. Shortly before secondary lead recovery operations ceased at the facility, the sludge drier malfunctioned and was never repaired. Hazardous waste sludge was placed on a concrete foundation at the facility. Pursuant to a Partial Interim Agreed Order with IDEM, the contents from the calcium sulfate sludge piles were removed from the site, treated, and disposed off-site at a hazardous waste landfill in the summer of 1992.

(3) Baghouse flue dust, listed as a hazardous waste (K069), was generated by a blast furnace and collected in bag filters. The baghouse flue dust was placed in a waste pile inside the Tank House Building at the facility. Pursuant to the Partial Interim Agreed Order with IDEM, the content from the baghouse flue dust waste pile was removed and sent off-site for lead recovery during the summer of 1992.

(4) Slag from the blast furnace operation was disposed of in the wetland areas, primarily in the southern portion of the property.

Following removal and off-site disposal of the contents of the calcium sulfate sludge and baghouse flue dust waste piles in summer of 1992, USS Lead has been required to complete total closure of the three hazardous waste management units in accordance with IDEM regulations and a Partial Interim Agreed Order.

On November 18, 1993, USS Lead and U.S. EPA entered into an Administrative Order on Consent pursuant to Section 3008 (h) of RCRA. The purpose of the Consent Order was to conduct interim stabilization measures (ISMs) to mitigate potential threats to human health and the environment, and, upon completion of the ISMs, conduct necessary investigations to determine the nature and extent of any release of hazardous waste and/or hazardous constituents from the facility as part of a modified RCRA Facility Investigation.

In 1994, USS Lead conducted an ISM as required by U.S. EPA consisting of dust and storm water runoff control measures and monitoring. The ISM included the application of a dust control agent over contaminated areas and installation

of a silt fence in the path of storm water flow. The monitoring aspect included visual inspection of the areas being controlled and air and surface water sampling and analysis.

On September 7, 1995, the IDEM approved with modifications the closure plan for the total closure of the three hazardous waste piles, dated August 8, 1990, and amended November 23, 1994, and March 31 and July 17, 1995.

Additional ISMs will be implemented at the facility upon completion of the partial remedy selection process by U.S. EPA, concurrently with the closure of the three hazardous waste piles under IDEM regulations. Upon implementation of the additional ISMs, a modified RCRA facility investigation (RFI) will be conducted in order to define the presence, magnitude, and extent of any hazardous wastes and/or hazardous constituents beyond the facility's boundary as a result of operations at the USS Lead facility. The U.S. EPA retains its right to require more extensive cleanup, including the selection of a final remedy, upon completion of this "off-site characterization". In addition, although no official determination has been made regarding this site, the United States Fish and Wildlife Service (U.S. FWS) anticipates pursuing a natural resource damage assessment for the site.

C. SUMMARY OF FACILITY RISKS

The facility presents a documented risk to human health and the environment. The hazardous constituents present at the facility include arsenic, barium, cadmium, chromium, selenium, lead, and mercury. Lead has the highest concentration in sources and releases of hazardous constituents at the facility. Further information on documented sources and releases of hazardous constituents at the facility is presented below.

In May 1982, Ecology and Environment, Inc. (E&E), a consulting firm contracted by U.S. EPA, sampled the blast furnace slag at the facility and reported the results to U.S. EPA. The sample results show total constituent concentrations for arsenic [991 milligrams per kilogram (mg/kg)], barium (3,870 mg/kg), chromium (320 mg/kg), selenium (120 mg/kg), and lead (21,300 mg/kg). Acid leach tests performed on the samples produced the following results: arsenic (223 ppm), chromium (3.4 ppm), and lead (2,390 ppm).

On or about May 1982, E&E submitted a report to U.S. EPA on water samples collected in the marsh slag fill area. The samples were taken to ascertain the extent of metal contamination in the marsh area. E&E reported elevated levels of antimony [70 parts per billion (ppb)], arsenic (1.600 ppb), boron (10,100 ppb), lead (120), selenium (70 ppb) in the marsh area where the disposal of slag occurred.

On March 13, 1984, E&E conducted an on-site sampling inspection of the hazardous waste stored on-site. The report on the inspection and sample analysis results, dated June 13, 1985, indicated a potential for ground-water and surface water contamination from the management practices for the baghouse flue dust and blast furnace slag land disposed at the facility. Based on the

sampling data, the following heavy metals were detected in the slag: arsenic, antimony, cadmium, lead, selenium, chromium, and zinc, and the baghouse flue dust contained arsenic, antimony, cadmium, lead, selenium, chromium, mercury, and zinc.

On July 30, 31, and August 1, 1985, U.S. EPA conducted a lead soil survey in Lake County, Indiana. Nineteen lead soil samples were taken in areas surrounding the facility, but not on the facility property, and were analyzed for total lead content. At six off-site locations, the lead levels were greater than or equal to 11,000 mg/kg. Four of these sample sites were to the north-northeast in residential areas directly north of the facility. The two other points were southeast of the facility. Of the remaining 13 sample sites, the following lead concentration ranges were found:

(1) Two locations with lead levels greater than 500 mg/kg;
(2) Five locations with lead levels ranging from 300 mg/kg to 500 mg/kg; and
(3) Six locations with lead levels below 300 mg/kg.

On or about December 1986, IDEM collected four samples from the blast furnace slag waste disposal on-site for analysis for determining if the slag exhibited the toxicity characteristic of hazardous waste. The test results indicated that the slag was hazardous for lead.

On April 15, 1991, U.S. EPA collected water samples from a 10-inch pipe that serves as a discharge point for flow collected from process sewers underlying the facility. The pipe discharges into the Outfall Canal that flows from the facility into the Grand Calumet River. The purpose of the sampling was to determine if hazardous constituents were being released from the facility through overland flow. The sampling took place during a rainfall on April 15, 1991. The estimated flow from the pipe on April 15 was approximately 200 gallons per minute. Grab samples were collected from the pipe. Parameters measured included metals, fluoride, phenols, and total suspended solids. The analytical data showed the following levels: fluoride (8.6 ppm), lead (954 ppb), cadmium (287 ppb), copper (124 ppb), nickel (123 ppb), antimony (470 ppb), and zinc (1580 ppb).

In 1993, IT Corporation, USS Lead's contractor, conducted a survey of the site using an X-Ray Fluorescence (XRF) device to field screen the site for total lead concentrations. The study was designed to sample the top 6 inches of material on a fifty foot grid pattern over an approximate 25 acre area of the site. This study revealed concentrated areas of lead contamination ranging from less than 500 mg/kg to above 5,000 mg/kg of lead in soils.

Some of the hazardous wastes or hazardous constituents identified in soil, surface water, and sediments at the facility are listed as systemic toxicants and known or suspected carcinogens by the U.S. EPA, including lead, cadmium, chromium, selenium, mercury, and arsenic. Releases from the USS Lead facility have impacted air, surface water, and soils and sediments from the facility.

The goal of the selected partial remedy is to cleanup the contaminant sources and the most contaminated soils and sediments in order to reduce risks to

human health and the environment at the facility. As indicated earlier, the U.S. EPA retains its right to require more extensive cleanup, including the selection of a final remedy, upon completion of the off-site characterization. Any final remedy required in the future would eliminate human health risks based on applicable health-based standards.

D. SCOPE OF CORRECTIVE ACTION

The interim stabilization measure (ISM) that was conducted in 1994 provided partial relief from the releases of metal contamination at the facility. As a next step and additional ISMs, USS Lead will implement the proposed partial remedy in order to further mitigate potential threats to human health and the environment at the facility.

The proposed remedy is a partial, rather than final remedy because it does not address the entire contamination at the facility. However, contaminant sources and the most contaminated soils and sediments will be cleaned up, which will lessen the contamination at the facility. These contaminant sources include lead slag and lead-battery case chips. For soils and sediments, contamination at or above 500 mg/kg of lead will be prioritized for removal (lead is the metal found at highest concentrations in contaminated areas at the facility). Since lead is associated with the other metal contaminants in soils and sediments at the facility, the removal of lead contamination will also address the removal of contamination from other metals.

As mentioned earlier, the U.S. EPA retains its right to require more extensive cleanup, including the selection of a final remedy, upon completion of the off-site characterization.

E. DESCRIPTION OF CAMU

The proposed Corrective Action Management Unit (CAMU) encompasses a minimum area of approximately seven-acres of the USS Lead facility (the "Initial CAMU"), but provides for possible expansion of the CAMU to include approximately seven additional acres ("Expansion Area"). Attachment D provides an illustration of the area of the CAMU.

The Initial CAMU is a rectangular-shaped area of the facility. Its eastern boundary parallels the facility fence and the Conrail railroad line to the east of the Laboratory, Main Office, and Club House buildings, and is located inside the fence line. This boundary extends from a point adjacent to the southern foundation of the Mixed Metals Building, to a point approximately 160 feet north of the northern foundation of the Tank House Building. The western boundary parallels the western foundations of the Mixed Metals and Tank House buildings, at a location adjacent to the Tank House Building. The southern boundary parallels and is located at a point adjacent to the southern foundation of the Mixed Metals Building. The northern boundary parallels the northern foundation of the Tank House Building, at a location located approximately 160 feet north of the Tank House Building.

The Initial CAMU encompasses the site of the following buildings of the facility: Laboratory, Main Office, Club House, Battery Breaker Building, By-Products Building, Change House, Mixed Metals Building, Bag House, Trillium Building, Old Silver Refinery Site, and Tank House. These buildings either have been demolished or will be demolished as part of this remedy, and building foundations will be left in place. The area for the Initial CAMU also includes two calcium sulfate sludge waste piles and a baghouse flue dust waste pile. The calcium sulfate sludge waste piles are located between the By-Products Building and the Change House, and the Old Silver Refinery Site and the Tank House Building. The baghouse flue dust waste pile is located in the Tank House Building.

The potential Expansion Area of the CAMU would comprise two parcels of land. The larger unit would comprise at most an approximately 400 by 725-foot rectangular area west of the Initial CAMU, between the northern end of the Outfall Canal, and wetlands north of the facility Store. This area potentially includes the sites of the Maintenance Shop, Pump House 2, and Store. The smaller unit would comprise an area adjoining the Initial CAMU, to the north of the Tank House Building. Neither unit of the Expansion Area would include jurisdictional wetlands.

F. SUMMARY OF ALTERNATIVES

The interim measure alternatives for the cleanup of contaminant sources and the most contaminated soils and sediments at the USS Lead facility are presented below.

- Alternative 1: Removal, Consolidation, and On-Site Disposal.
- Alternative 2: Removal, On-Site Treatment, and Off-Site Disposal.
- Alternative 3: Removal, Off-Site Treatment, and Off-Site Disposal.

Each of the interim measures alternatives will also include the following activity:

- Plug and/or cap sewer and water lines from the former process area of the facility.

Below, an analysis of the alternatives is presented.

- **Alternative 1:** Removal, Consolidation, and On-Site Disposal

  This alternative is to use a Corrective Action Management Unit (CAMU) to dispose of remediation wastes from the facility and facilitate the closure of three hazardous waste piles as part of the CAMU. Also, as part of this alternative, sewer and water lines from the former process area of the facility would be plugged and/or capped.

  The CAMU under the proposed partial remedy would be an area of the facility designated by the U.S. EPA's Regional Administrator, as described in Section E above. The area of the facility proposed for a

CAMU designation contains existing building foundations from the area where operations of the facility took place, areas between existing buildings foundations, and other adjacent contaminated areas from the facility. The CAMU would be located in filled areas of the facility and it would not encroach into jurisdictional wetland areas or within the 100 year floodplain.

The remediation wastes to be managed in the CAMU would include removed lead slag and lead-battery case chips, and the most contaminated soils and sediments. Removal activities will take place in the filled areas and the Outfall Canal at the facility. Off-site contamination north and east of the facility that may be identified as originating from the USS Lead facility or facility operations may also be removed and disposed of in the CAMU upon U.S. EPA's approval. Besides remedial wastes, the CAMU would contain the three hazardous waste piles that would be closed in place inside the CAMU. Since the remediation wastes are managed in accordance with the CAMU provisions, waste would not be subject to the RCRA land disposal restrictions (LDR) and the minimum technological requirements (MTRs). Innovative technologies would be used to provide containment of the wastes and enhance the protectiveness of the partial remedy.

The wastes would be contained in the CAMU by installing the following: 1) a perimeter soil-bentonite slurry wall (width of 3 feet and depth between 28 to 38 feet); 2) a system of ground-water wells on the inside and outside of the slurry wall to maintain an inward hydraulic gradient and monitor the integrity of the slurry wall; and 3) a composite cover for the CAMU. In addition, the CAMU will provide containment for existing soil contamination present within the CAMU's boundary. Additional ground-water monitoring wells may be installed after review of the initial ground-water monitoring data.

As required by the CAMU provisions, the CAMU would be constructed and closed in place as a landfill. Also, USS Lead would provide post-closure monitoring and maintenance care for the CAMU for a period of 30 years or more. As required by IDEM regulations, USS Lead would also provide for the closure in place of three hazardous waste piles as a landfill and post-closure monitoring and maintenance care. In addition to ground-water monitoring required to ensure the integrity of the CAMU, IDEM has required a Characterization of Site Hydrology and Ground-Water Quality Plan for implementation in conjunction with closure activities.

The CAMU would be constructed using a phased expansion to allow additional capacity for remediation wastes as needed. The CAMU would have a minimum area of seven acres, with a capacity of approximately 45,000 cubic yards, and a maximum of 14 acres, with a capacity of approximately 100,000 cubic yards, depending on what capacity is needed. Therefore, this alternative would allow the cleanup of up to 100,000 cubic yards of remediation wastes along with contamination from three hazardous waste piles. In addition, the remediation areas will be backfilled in accordance with a Revegetation Plan and Specifications

from the U.S. Army Corps of Engineers (U.S. ACE) Wetland Permit #94-073-003-OA. This alternative would have a total cost of up to approximately 5.55 million dollars. This cost includes a present cost of up to approximately 5.1 million dollars and an Operation and Maintenance (O & M) cost of up to approximately 0.45 million dollars. This alternative would be completed in 1 to 2 years.

- **Alternative 2:** Removal, On-Site Treatment, and Off-Site Disposal

  This alternative is to remove up to 100,000 cubic yards of lead slag and lead-battery case chips and the most contaminated soils and sediments at the facility, and conduct stabilization on-site. Also, sewer and water lines from the former process area of the facility would be plugged and/or capped. Upon on-site stabilization, wastes would be first analyzed in order to assure that the wastes no longer exhibit the toxicity characteristic of hazardous waste. Later, the wastes will be disposed off-site at a non-hazardous waste landfill. The cost of this alternative would be approximately 12.2 million dollars, and would be completed in 1 to 2 years.

- **Alternative 3:** Removal, Off-Site Treatment, and Off-Site Disposal

  This alternative is to remove up to 100,000 cubic yards of lead slag and lead-battery case chips and the most contaminated soils and sediments at the facility and conduct off-site treatment and disposal. Also, sewer and water lines from the former process area of the facility would be plugged and/or capped. The cost of this alternative would be approximately 19.0 million dollars, and would be completed in 1 year.

G. EVALUATION OF THE PROPOSED PARTIAL REMEDY AND ALTERNATIVES

The proposed partial remedy for cleaning up metal contaminant sources and the most contaminated soils and sediments at the USS Lead facility is Alternative 1: Removal, Consolidation, and On-Site Disposal. The following discussion profiles the performance of the proposed partial remedy against the technical, human health, environmental, and institutional criteria.

1. Technical

Technical criteria were compared on a relative basis between each of the interim measure alternatives and their components. Alternative 1 (Removal, Consolidation, and On-Site Disposal) was found to best meet all the technical criteria goals of performance, reliability, implementability, and safety.

Performance of the proposed partial remedy is evaluated through effectiveness and useful life. Alternative 1 would be effective in removing, consolidating, and providing on-site disposal in a Corrective Action Management Unit (CAMU) for remediation wastes. In addition, Alternative 1 would be effective in containing releases from remediation wastes in addition to releases from soil contamination within the CAMU's

boundary, through the use of a perimeter slurry wall, a system of ground-water wells to maintain an inward hydraulic gradient and monitor for releases, and a composite cover. While Alternatives 2 and 3 would be effective as far as providing stabilization of the remediation wastes, they would not provide long term care to address releases from contaminated soils that remain below excavated depth.

Reliability of the proposed partial remedy is evaluated through Operation and Maintenance (O & M) requirements and demonstrated reliability. Under Alternative 1, long-term reliability would be maintained by monitoring the CAMU which would be closed as a landfill and providing maintenance needed to insure integrity of the proposed partial remedy during the post-closure care period (30 years or more). With regards to reliability, Alternatives 2 and 3 lack O & M requirements.

Implementability of the proposed partial remedy is evaluated through its constructability and the time required for implementation. With regards to constructability, Alternative 1 would be easily installed using a phased expansion. Also, Alternative 1 would facilitate the closure in place of the three hazardous waste piles while providing long-term containment of remediation wastes and soil contamination within the CAMU's boundaries. In addition, Alternative 1 does not provide any concerns relating to compatibility of waste for on-site disposal in the CAMU because hazardous constituents present at the facility are metals. While Alternatives 2 and 3 would be easily carried out, their implementation do not include the installation of an O & M system. For all alternatives, the time required for implementation ranges from 1 to 2 years; therefore, no basis for comparison is provided regarding such aspect.

Safety of the proposed partial remedy is evaluated for workers, nearby communities, and the local environment. The chances of fire, explosion, and exposure to hazardous constituents are considered. With regards to Alternative 3, there would be some risks associated with the off-site transport of remediation wastes. Waste management activities associated with implementation of the CAMU under Alternative 1 would be performed in accordance with a Health and Safety Plan from the ISM Workplan and would pose no unacceptable risk to humans or would result in little negative effect to the environment.

Based on the above, Alternative 1 was selected from among the three alternatives as it overall provides the highest degree of performance, reliability, implementability, and safety.

2. **Human Health**

The selected partial remedy should mitigate risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents.

This criterion is most effectively addressed by Alternative 1. The proposed partial remedy should remove, consolidate, dispose in a Corrective Action Management Unit (CAMU), and contain any releases from remediation wastes and soil contamination within the CAMU's boundary. Containment should be attained by installing a perimeter slurry wall, a ground water monitoring system to maintain an inward hydraulic gradient and monitor for releases, and a composite cover. Compliance with post-closure care requirements would be addressed by performing groundwater monitoring and maintenance activities during a period of 30 years or more to ensure the integrity of the interim measure and protection of human health and the environment.

There would be some risks associated with the off-site transport of wastes with regards to Alternative 3 (Removal, Off-Site Treatment, and Off-Site Disposal) as indicated under the evaluation for technical criterion. Concerning Alternatives 2 and 3, the absence of post-closure care may be highly unprotective of human health and the environment.

Based on the above, Alternative 1 was selected from among the three alternatives since it includes interim measures that would more effectively mitigate risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents.

3. **Environmental**

The proposed partial remedy would provide the greatest improvement to the environment over the shortest period of time. Adverse effects from the implementation of the partial remedy should be minimized.

An Ecological Risk Assessment was performed at this site to assess any possible ecological impacts at the facility resulting from the implementation of the activities associated with Alternative 1. The results from the assessment indicate that Alternative 1 would improve site conditions by minimizing any further release of contaminants from the site; thereby progressing toward elimination of contamination to the surrounding habitat. Furthermore, the activities proposed under Alternative 1, when carried out in accordance with established requirements, would result in little negative effect to nearby endangered, threatened, candidate, or rare species or their habitat. Prior to any construction activities occurring annually between mid-April and mid-July, an assessment by USS Lead's ecological contractor would be performed to determine if nesting of Marsh wrens and Franklin ground squirrels is found or is anticipated to be affected by these activities. Marsh wrens and Franklin ground squirrels have been identified as those endangered, threatened, candidate, or rare species that may be affected by these activities at the area of the facility. In addition, remediated areas will be backfilled and revegetated in accordance with the U.S. ACE Wetland Permit.

Alternative 2 (Removal, On-Site Treatment, and Off-Site Disposal) and Alternative 3 (Removal, Off-Site Treatment, and Off-Site Disposal) may provide the greatest improvement to the environment by excavating,

treating, and disposing wastes off-site. However, due to the fact that contaminated soils would remain below excavated depth, it would be necessary to implement long term care to provide protectiveness. The overall protection of the environment is addressed more effectively by Alternative 1 for the reasons discussed in the evaluation for technical criterion.

Therefore, Alternative 1 was selected as it provides the most effective means of protecting the environment.

4. **Cost Estimate**

Costs were determined for each alternative in order to evaluate cost-effectiveness for those alternatives that were determined acceptable when evaluated for technical, human health, environmental, and institutional criteria. Costs were greatest for Alternative 2 (Removal, On-Site Treatment, and Off-Site Disposal) and Alternative 3 (Removal, Off-Site Treatment, and Off-Site Disposal) despite the lack of cost for Operation and Maintenance. This is an indication that Alternative 1 (Removal, Consolidation, and On-Site Disposal) maintains its cost effectiveness as a partial remedy without compromising the reliability it provides through the implementation of post-closure monitoring and maintenance care for the Corrective Action Management Unit (CAMU) for a period of 30 years or more.

5. **Institutional**

The selected partial remedy should address applicable Federal, State, and local standards, and regulations for the design, operation, and timing of each alternative.

Under Alternatives 2 and 3, remediation wastes would be treated prior to disposal off site in accordance with LDR requirements. This effectively addresses the institutional criterion. However, Alternatives 2 and 3 are lacking long term care.

As indicated earlier, Alternative 1 would allow the use of a Corrective Action Management Unit (CAMU) to dispose of remediation wastes from the facility and facilitate closure of three hazardous waste piles as part of the CAMU. If the remediation wastes are managed in accordance with the CAMU provisions, remediation waste would not be subject to the RCRA LDR and the MTRs. Federal provisions provide the U.S. EPA's Regional Administrator with the authority to designate and approve a CAMU if it meets the criteria specified below:

(1) The CAMU shall facilitate the implementation of reliable, effective, and cost effective remedies;
(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;
(3) The CAMU shall include uncontaminated areas of the facility, only

if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable,

(6) The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that would remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes would remain in place after closure of the CAMU.

The evaluations presented for technical, human health, environmental, cost estimate, and institutional criteria would support the designation of a CAMU at the facility.

Alternative 1 addresses other various applicable standards. For example, the three hazardous waste piles contained in the CAMU will be closed in accordance with a closure plan approved by IDEM. Engineering drawing and specifications would be submitted for IDEM and U.S. EPA approval, as applicable, prior to closure of the three waste piles and construction of the initial 7 acre area of the CAMU, and prior to any expansion of the area of the CAMU up to 14 acres. Also, any excavation in the filled wetland areas or the vicinity of the non-filled wetlands would be performed in accordance with the applicable requirements of the Indiana Department of Natural Resources (IDNR), IDEM, U.S. EPA, and U.S. FWS, and in accordance with the U.S. ACE Wetland Permit. In addition, any removal of sediments from the Outfall Canal and the backfilling and revegetation of remediation areas would be performed in accordance with the U.S. ACE Wetland Permit. Furthermore, options to be considered for management of purge, decontamination, and pump water include: pretreatment and discharge to the East Chicago Sanitary District, hauling off-site to an authorized disposal facility, and pre-treatment and discharging to the Grand Calumet River under the facility's National Pollutant Discharge Elimination System (NPDES) permit. Upon completion of closure of the three waste piles and the CAMU, USS Lead would submit to IDEM and U.S. EPA, as applicable, a post-closure care permit application for the three hazardous waste piles and the CAMU.

Therefore, Alternative 1 was selected since no institutional impediments were identified associated with implementation of the partial remedy.

In summary, Alternative 1 (Removal, Consolidation, and On-Site Disposal) would include interim measures that would mitigate releases from metal contamination at the facility. These interim measures would also provide necessary post-closure care monitoring and maintenance. Therefore, Alternative 1 is the most

effective gradual step toward risk reduction to humans and the environment at the facility. The U.S. EPA believes that the proposed partial remedy is the most protective of human health and the environment.

H. PUBLIC PARTICIPATION

U.S. EPA solicits input from the community on the cleanup methods proposed for each of the interim measure alternatives. The public is also invited to provide comment on alternatives not addressed in this Statement of Basis (SB). U.S. EPA has set a public comment period from March 26th through April 24th, 1996, to encourage public participation in the selection process. If a public meeting is requested, the Agency will publish a newspaper notice of the meeting prior to holding the meeting.

The Administrative Record is available at the following locations:

East Chicago Public Library
2401 East Columbus Drive
East Chicago, Indiana 46312
(219) 397-2453
Contact: Reference Department

Gary Public Library
220 W. 5th Avenue
Gary, Indiana 46402
(219) 886-2484
Contact: Reference Department

Whiting Public Library
1735 Oliver Street
Whiting, IN 46394
(219) 659-0269
Contact: Reference Department

and

U.S. EPA, Region 5
Waste, Pesticides, and Toxics Division Record Center
77 West Jackson Boulevard, 7th Floor
Chicago, Illinois 60604
(312) 353-5821
Hours: Mon-Fri, 8:30 a.m. - 5:00 p.m.

After consideration of the comments received, U.S. EPA will select the partial remedy and document the selection in the Response to Comments (RTC). In addition, comments will be summarized and responses provided in the RTC. The RTC also will specify if any changes were made. Each person who submitted

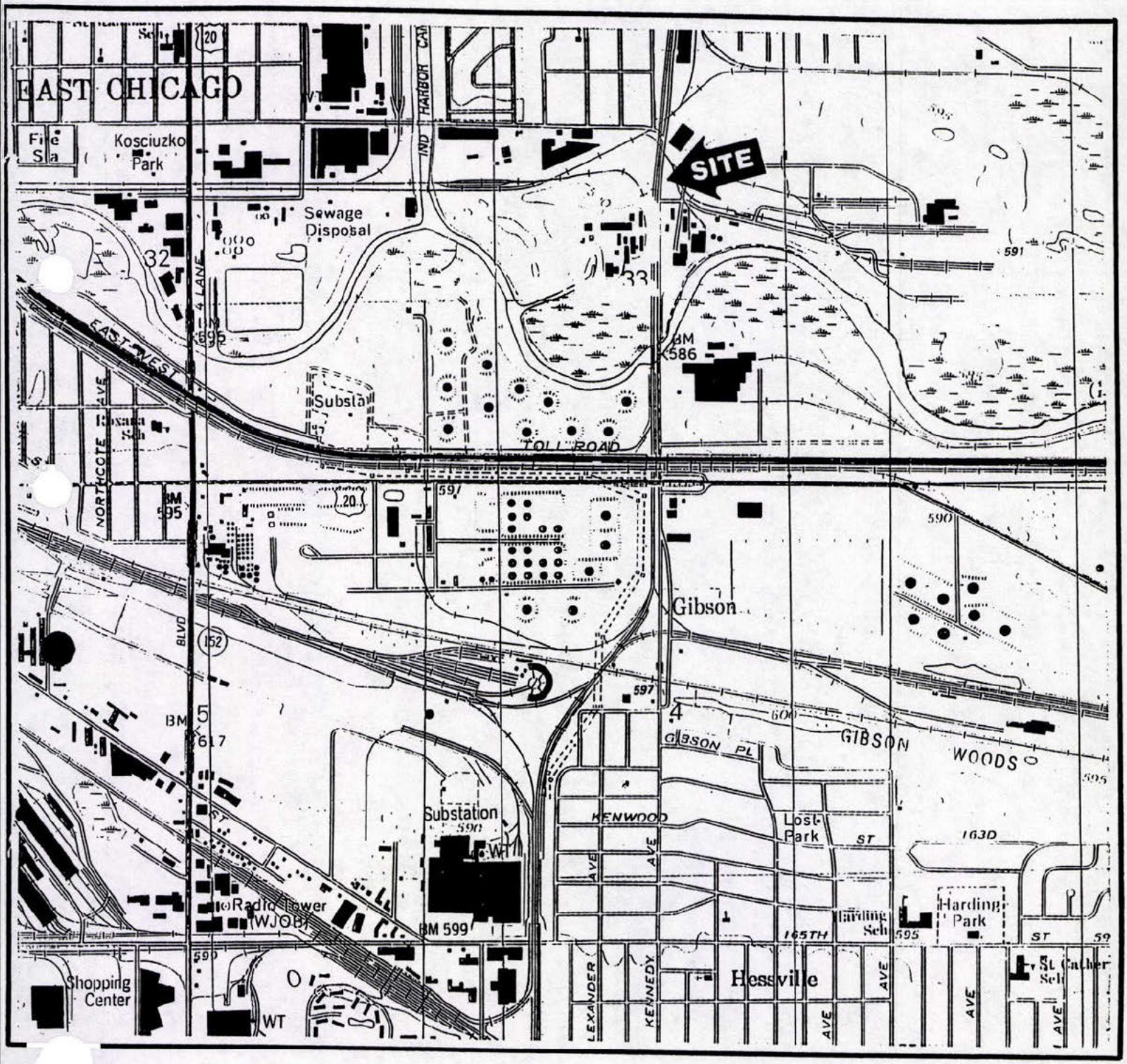
comments will receive a copy of the RTC. The RTC will be incorporated into; the Administrative Record. Written comments regarding the SB must be postmarked by April 24rd, 1996, and must be sent to:

Ms. Mirtha Capiro
Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency
77 West Jackson Boulevard, DRE-8J
Chicago, Illinois 60604
(312) 886-7567

N

SITE OR FACILITY'S LOCATION

ATTACHMENT A



USS LEAD REFINERY, INC.

LAKE COUNTY
EAST CHICAGO, INDIANA

SCALE

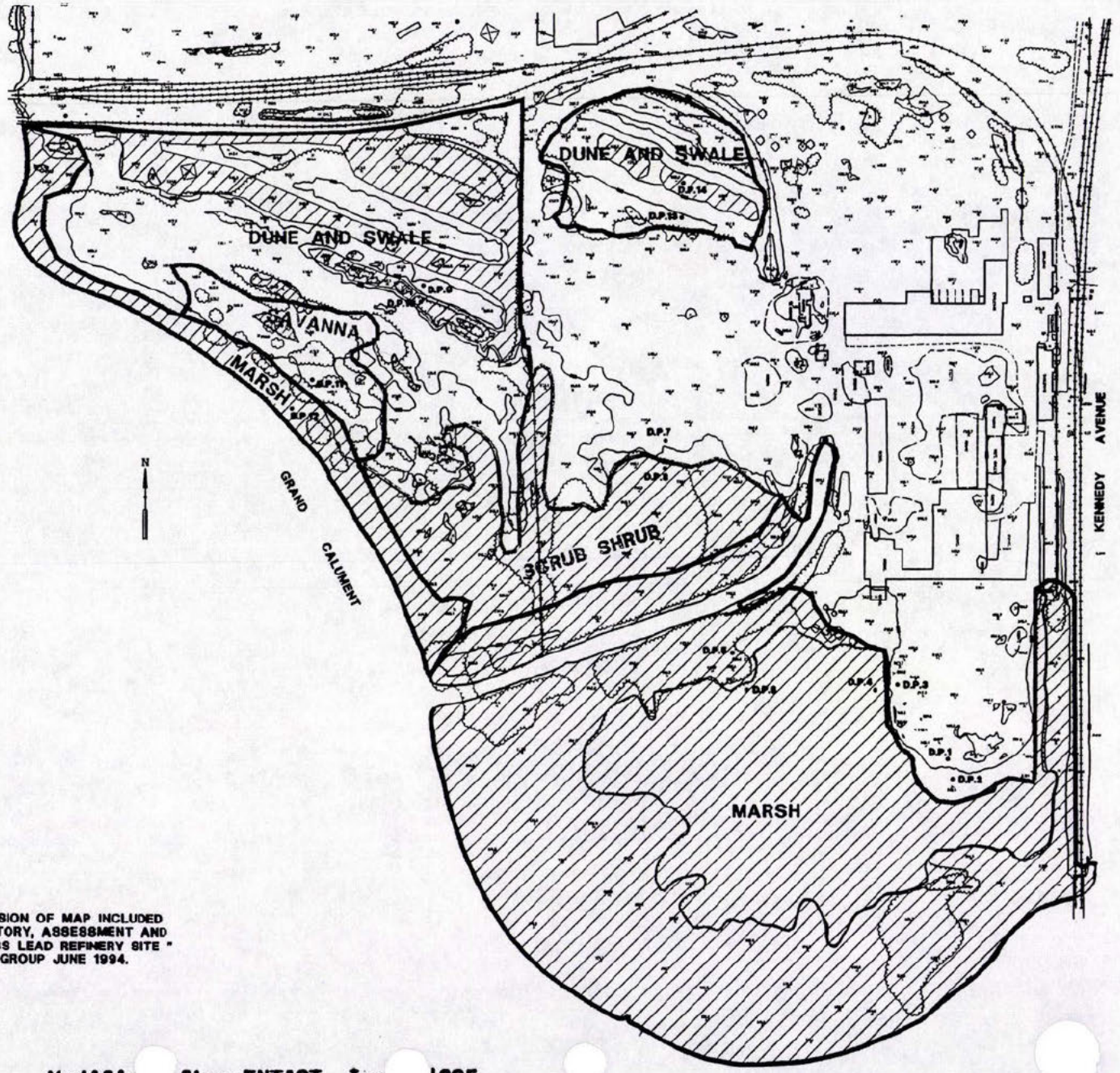
0 1/2 1 MILE

Modified after ENTACT, Inc., 1995

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

HABITAT & WETLAND DELINEATION

ATTACHMENT C



WETLAND

D.P. = DATA POINT

REPRODUCED AND SCALED VERSION OF MAP INCLUDED IN " A BIOLOGICAL SITE INVENTORY, ASSESSMENT AND WETLAND DELINEATION FOR: USS LEAD REFINERY SITE " PREPARED BY THE WHITE OAK GROUP JUNE 1994.

SCALE : 1" = 285'

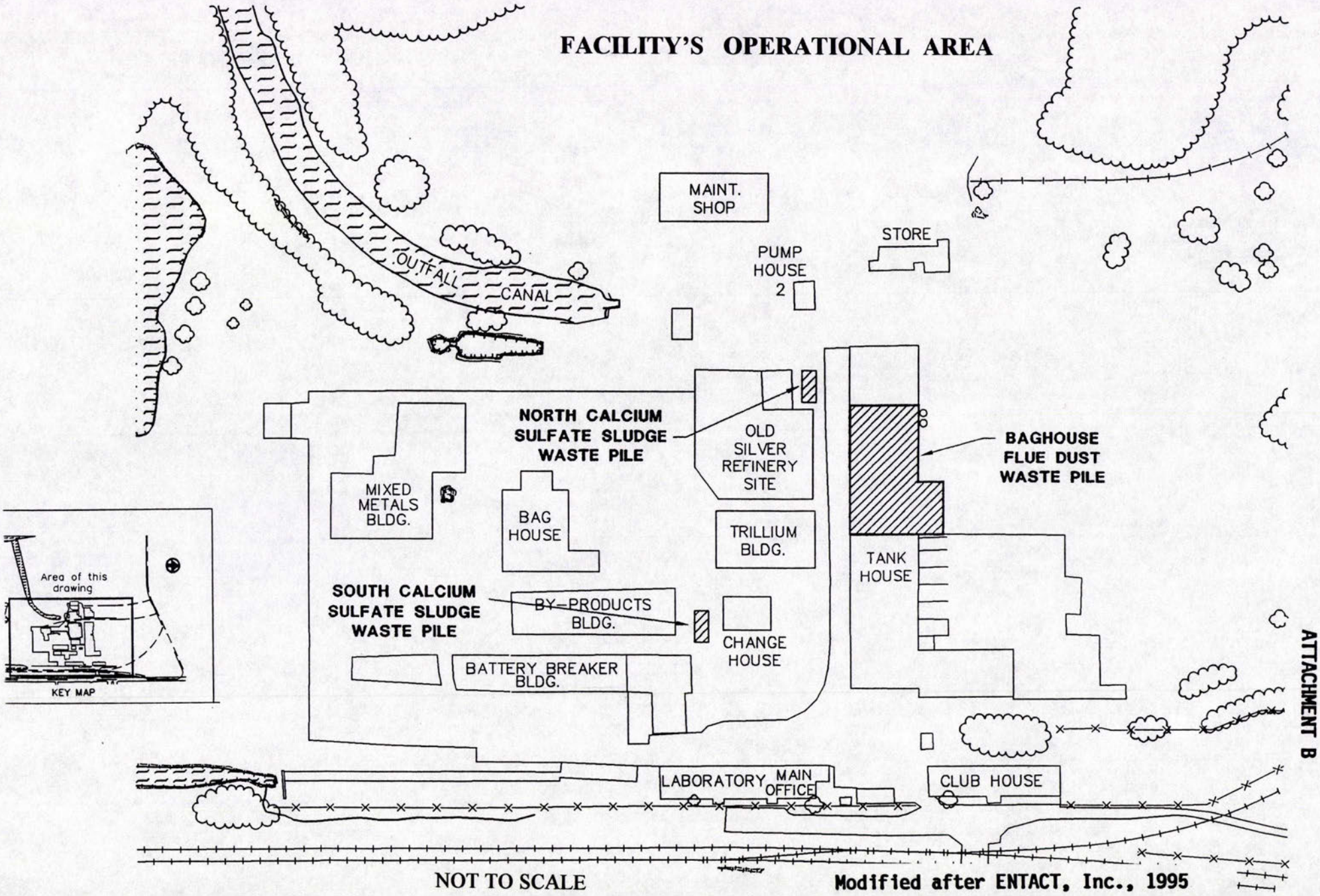
Modifi[illegible] fter ENTACT, Inc[illegible] 1995

LEGEND

REGULATED UNITS

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

FACILITY'S OPERATIONAL AREA



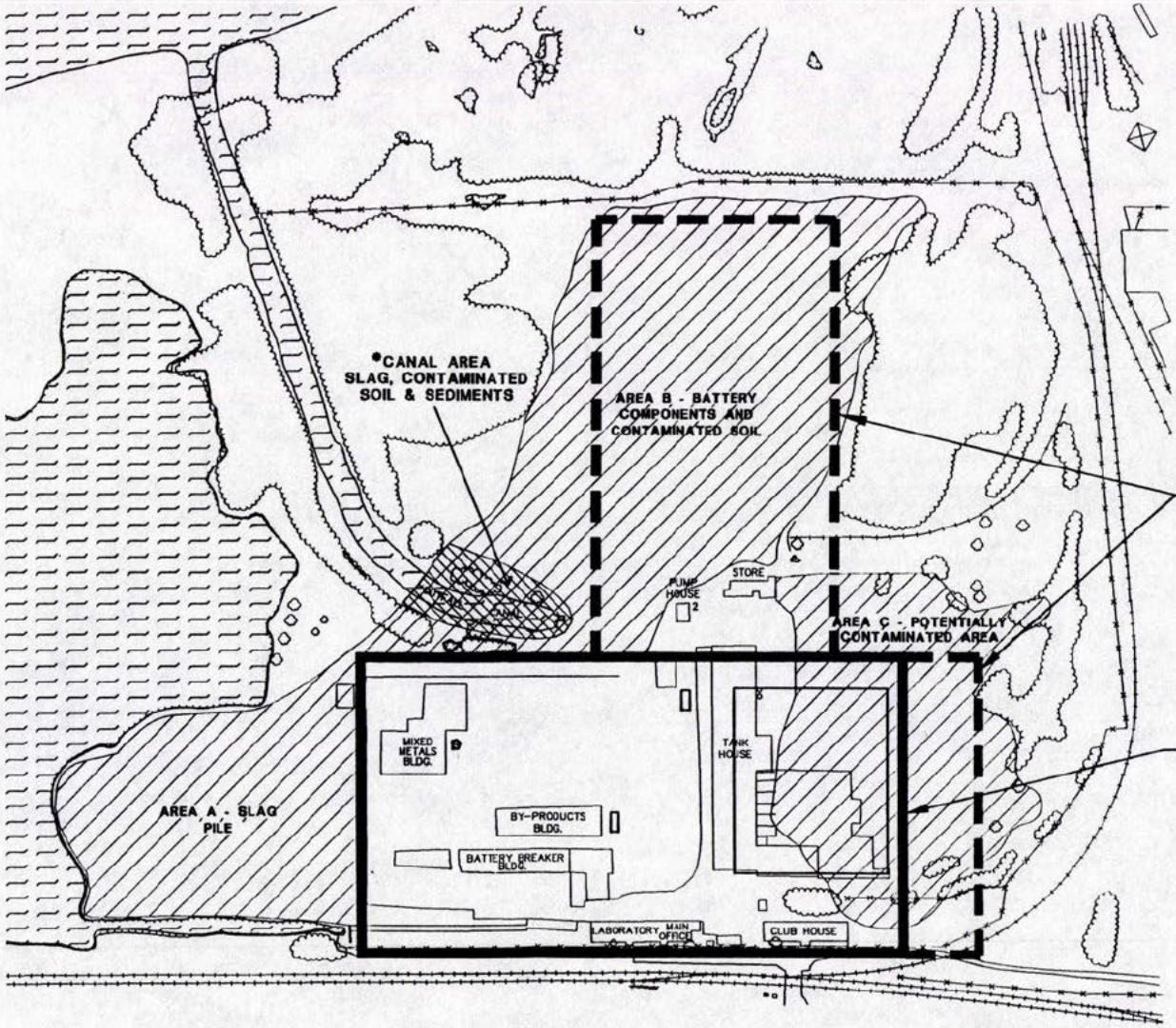
NOT TO SCALE

Modified after ENTACT, Inc., 1995

ATTACHMENT B

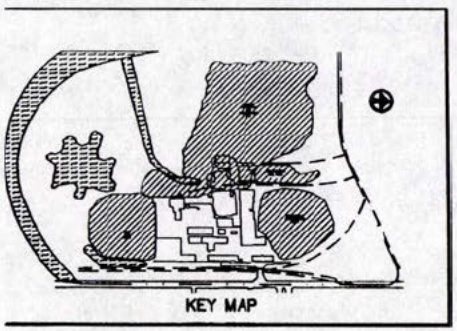
USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

Corrective Action Management Unit



LEGEND

- CAMU AREA
- REMEDIATION AREA
- REGULATED UNITS
- • BANKS OF CANAL WILL REMAIN AFTER REMEDIATION



NOT TO SCALE

Modified after ENTACT, Inc., 1996

ATTACHMENT D

DATE: May 2, 1996

TO: Kay Nelson, Director
Northwest Indiana Office
Indiana Department of Environmental Management

FROM: Mirtha Capiro
Waste, Pesticides, and Toxics Division
U.S. Environmental Protection Agency

RE: Public Hearing to be conducted by the U.S. Environmental Protection Agency (U.S. EPA) for the U.S.S. Lead Refinery, Inc. (USS Lead) site at East Chicago, IN

I am sending to you the information you requested with regards to the above public participation activity for the USS Lead site. The information is the following:

Purpose of the public hearing:

A public hearing will be conducted to present the proposed partial remedy for the USS Lead site that includes the U.S. EPA's designation of a Corrective Action Management Unit, and accept public comments. Area residents, public officials, and other interested parties will be invited to attend the meeting.

Agenda for the public hearing:

-Opening by hearing officer
-Presentation of the proposed partial remedy
-Informal question and answer session
-Formal session for aceptance of comments for the official record
-Adjourn

Location being negotiated for the meeting:

Riley Park Community Center
This location is the most accesible to local community residents.

Tentative dates and time for the public hearing:

June 21, 1996 or any day of July 1996. Evening hours.

If June 21 is determined to be the most adequate date, the U.S. EPA needs to be notified by no later than May 6, 1996. We are unable to schedule additional dates for June because required staff is unavailable for those dates.

Please contact me if you have any questions at 312/886-7567.

PUBLIC HEARING
ON
PROPOSED REMEDY FOR
U.S.S. Lead Refinery, Inc.

PRESENTED BY

U.S. Environmental Protection Agency

JUNE 20, 1996

PRESENTATION SLIDES

Grand Calumet River

Grand Calumet River/Indiana Harbor Canal Area

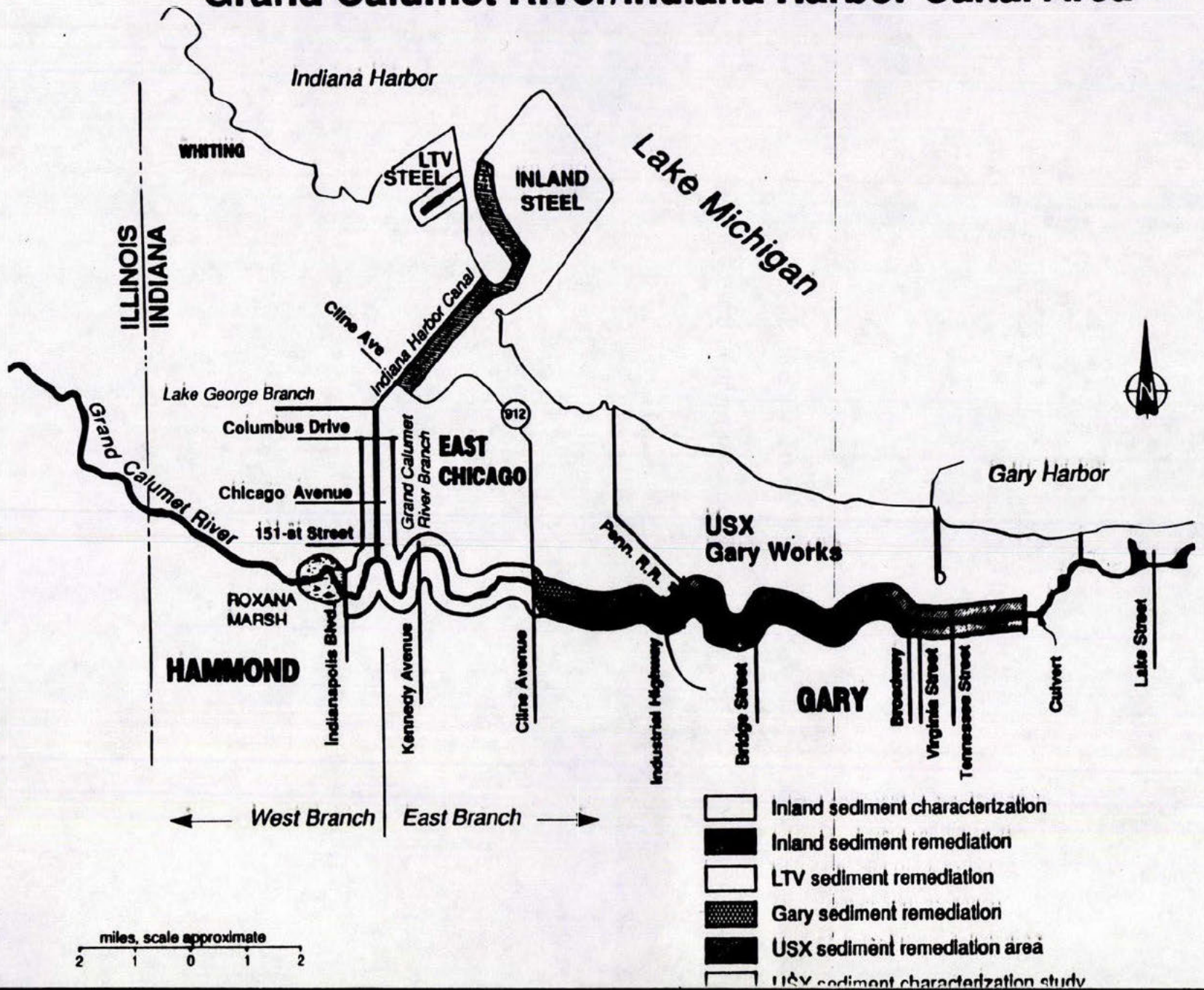
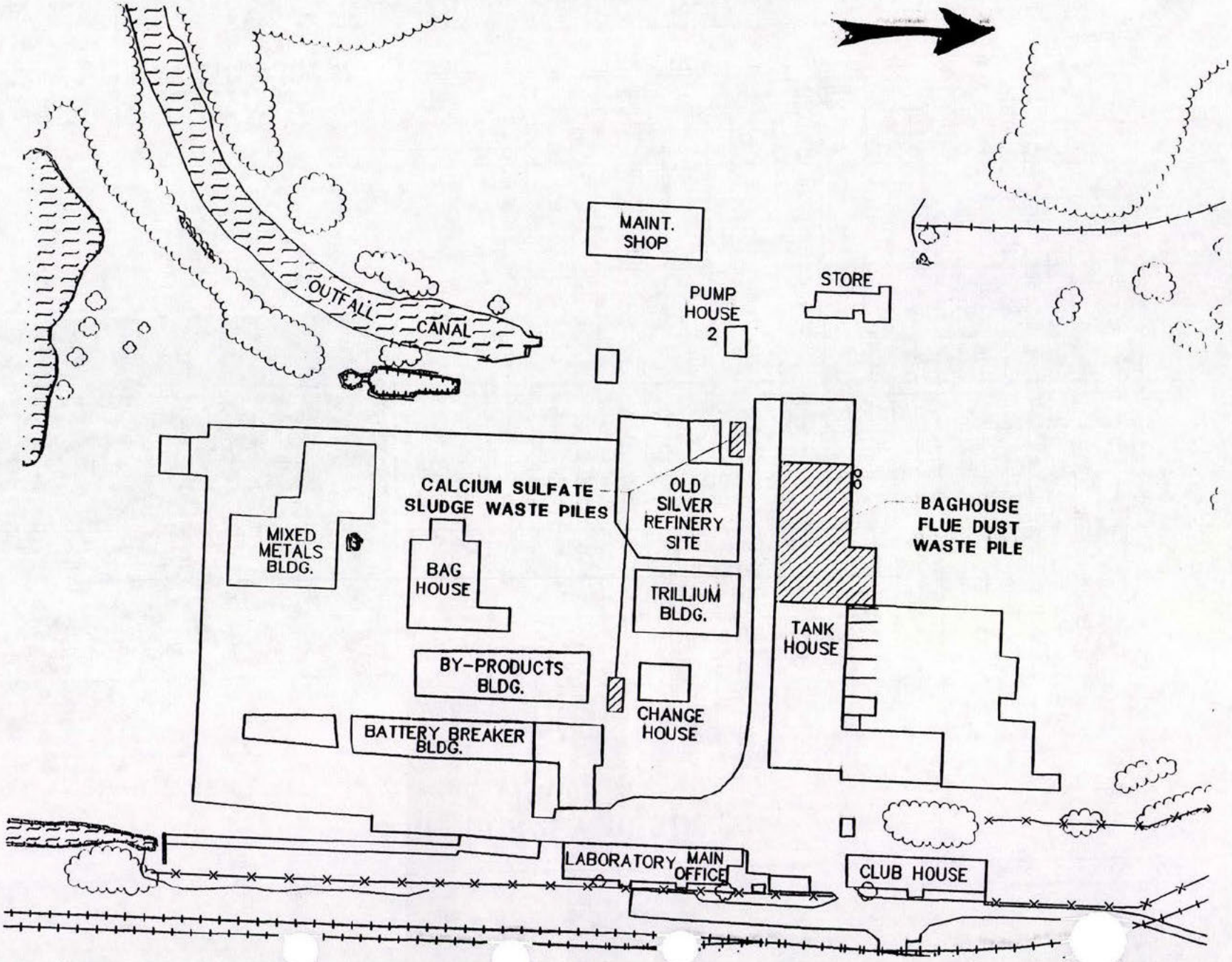


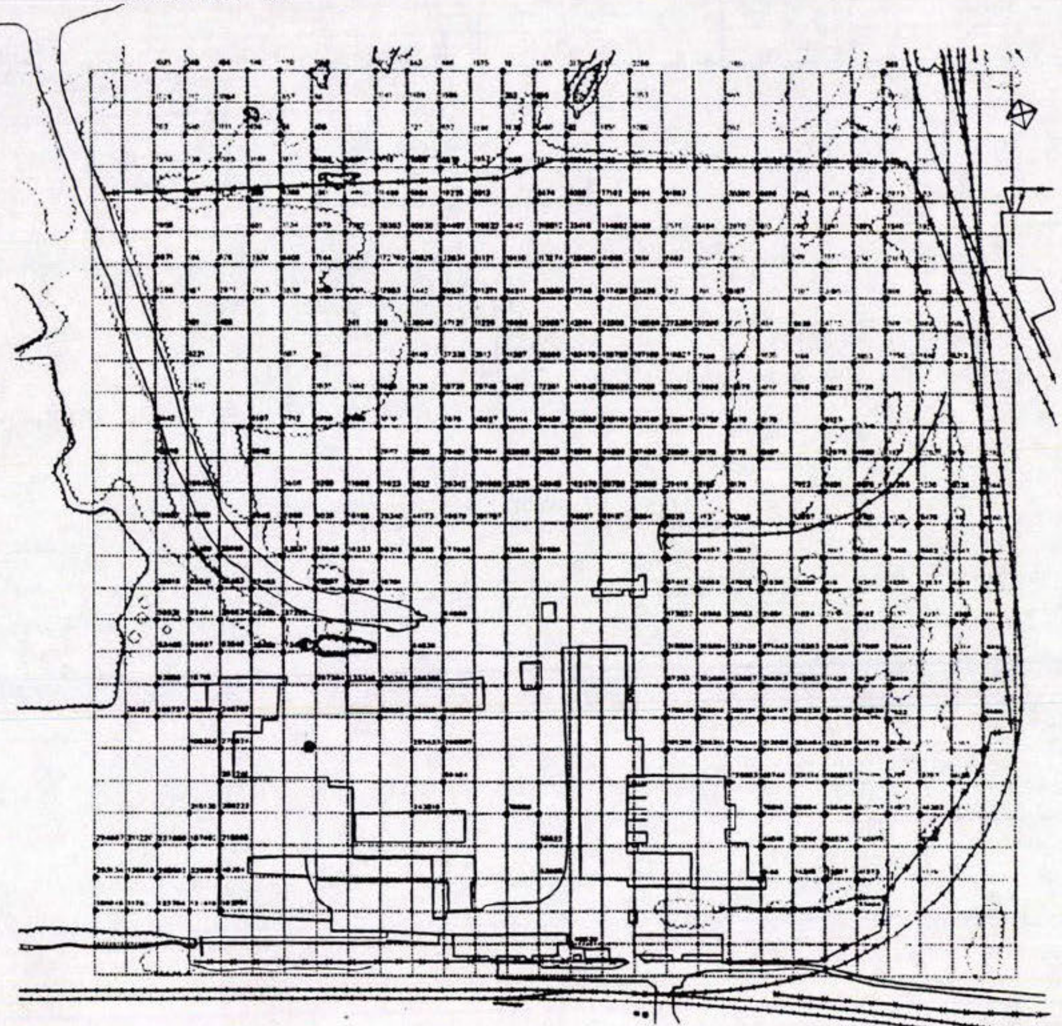
FIGURE 2

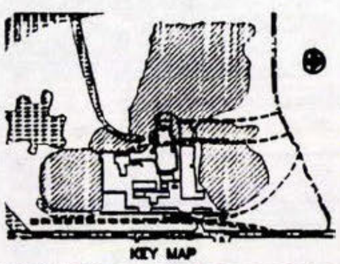
.ATED UNITS



3

XRF SURVEY RESULTS
FIGURE 5





LEGEND

- ● LESS THAN 500 MG/KG LEAD
- ✦ 500-5,000 MG/KG LEAD
- ● ABOVE 5,000 MG/KG LEAD

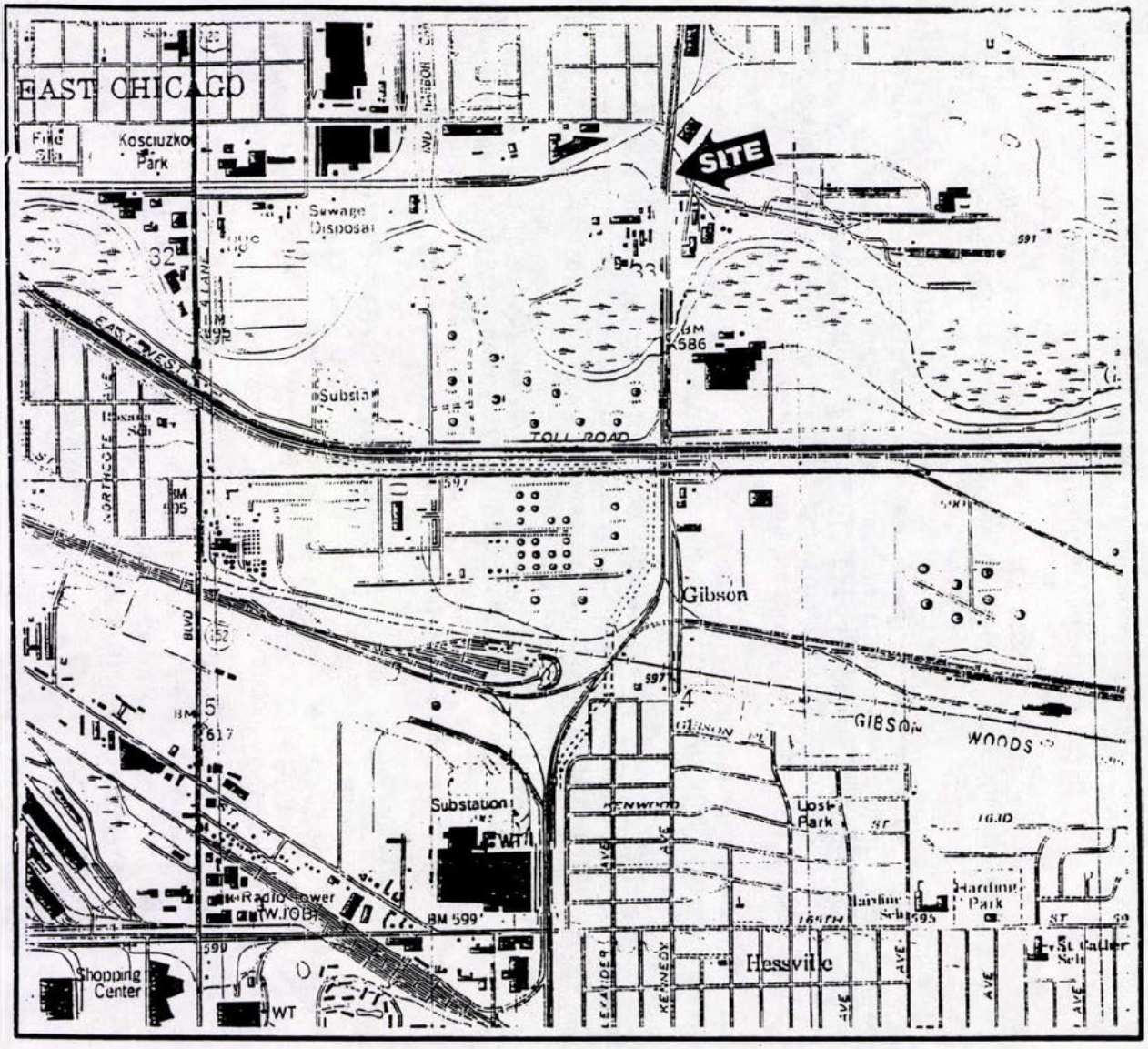
RESULTS FROM 1993 IT CORP. XRF FIELD SURVEY OF SURFACE LEAD CONTAMINATION

XRF SURVEY RESULTS
FIGURE 5

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

ENTACT

R 9 W



T 37 N

AFTER U.S.G.S. 7.5 MIN. TOPO QUAD., HIGHLAND, INDIANA, 1991

SCALE

0 1/2 1 MILE

INDIANA

N

FIGURE TITLE: FACILITY LOCATION	CLIENT: USS LEAD REFINERY, INC.
DOCUMENT TITLE: INTERIM STABILIZATION MEASURES WORKPLAN	LOCATION: LAKE COUNTY EAST CHICAGO, INDIANA

ENTACT
CORPORATE CT., STE. 150
IRVING, TEXAS 75038
(214) 580-1323

DATE: 10/95	PREPARED BY: LC
SCALE: AS SHOWN	CHECKED BY: TA
PROJECT NO: 639-1240-041	FIGURE NUMBER: 1

C. SUMMARY OF FACILITY RISKS

The facility presents a documented risk to human health and the environment. The hazardous constituents present at the facility include arsenic, barium, cadmium, chromium, selenium, lead, and mercury. Lead has the highest concentration in sources and releases of hazardous constituents at the facility. Further information on documented sources and releases of hazardous constituents at the facility is presented below.

In May 1982, Ecology and Environment, Inc. (E&E), a consulting firm contracted by U.S. EPA, sampled the blast furnace slag at the facility and reported the results to U.S. EPA. The sample results show total constituent concentrations for arsenic [991 milligrams per kilogram (mg/kg)], barium (3,870 mg/kg), chromium (320 mg/kg), selenium (120 mg/kg), and lead (21,300 mg/kg). Acid leach tests performed on the samples produced the following results: arsenic (223 ppm), chromium (3.4 ppm), and lead (2,390 ppm).

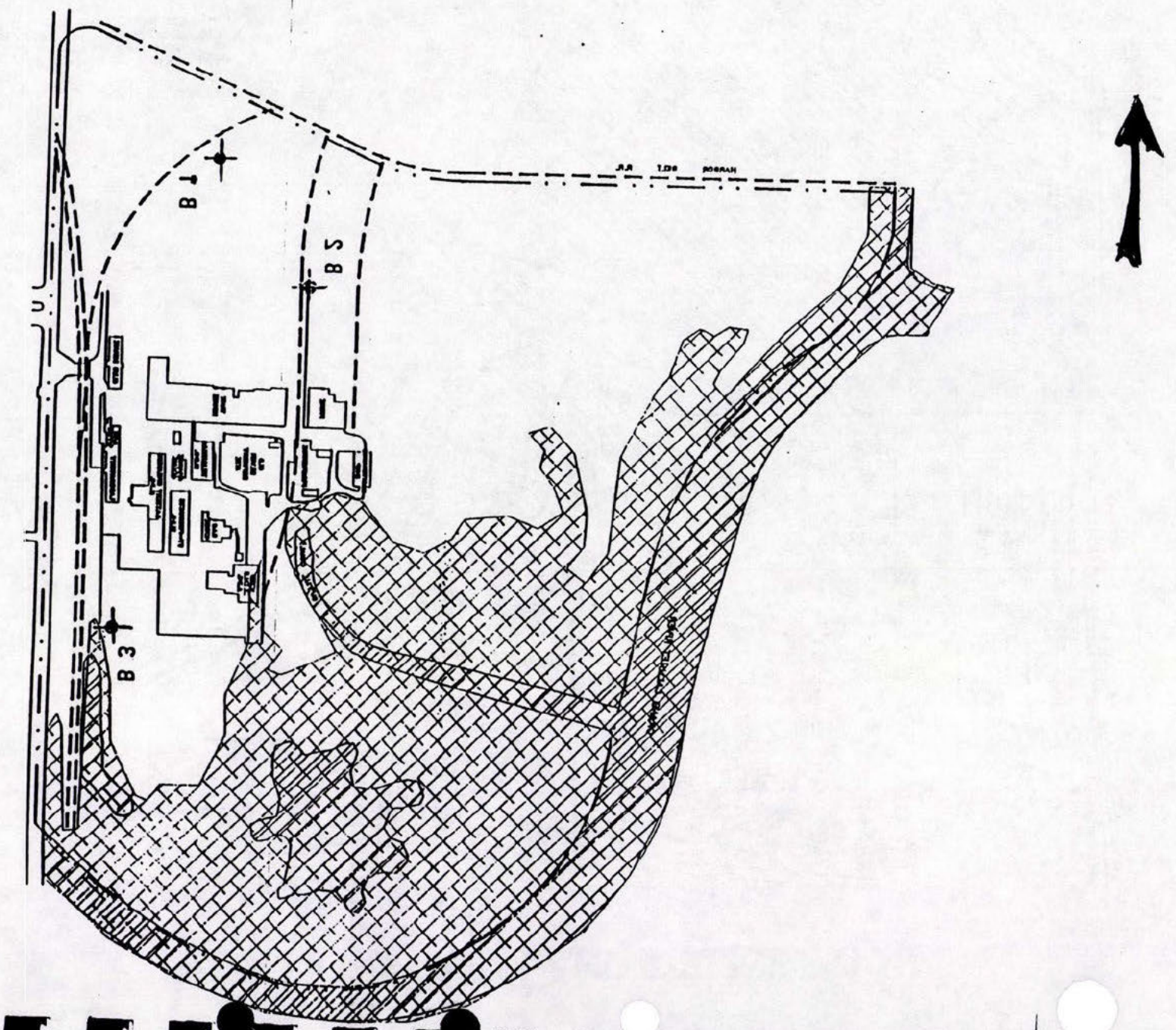
On or about May 1982, E&E submitted a report to U.S. EPA on water samples collected in the marsh slag fill area. The samples were taken to ascertain the extent of metal contamination in the marsh area. E&E reported elevated levels of antimony [70 parts per billion (ppb)], arsenic (1.600 ppb), boron (10,100 ppb), lead (120), selenium (70 ppb) in the marsh area where the disposal of slag occurred.

On March 13, 1984, E&E conducted an on-site sampling inspection of the hazardous waste stored on-site. The report on the inspection and sample analysis results, dated June 13, 1985, indicated a potential for groundwater and surface water contamination from the management practices for the baghouse flue dust and blast furnace slag land disposed at the facility. Based on the sampling data, the following heavy metals were detected in the slag: arsenic, antimony, cadmium, lead, selenium, chromium, and zinc, and the baghouse flue dust contained arsenic, antimony, cadmium, lead, selenium, chromium, mercury, and zinc.

On July 30, 31, and August 1, 1985, U.S. EPA conducted a lead soil survey in Lake County, Indiana. Nineteen lead soil samples were taken in areas surrounding the facility, but not on the facility property, and were analyzed for total lead content. At six off-site locations, the lead levels were greater than or equal to 1,100 mg/kg. Four of these sample sites were to the north-northeast in residential areas directly north of the facility. The two other points were southeast of the facility. Of the remaining 13 sample sites, the following lead concentration ranges were found:

(1) Two locations with lead levels greater than 500 mg/kg;
(2) Five locations with lead levels ranging from 300 mg/kg to 500 mg/kg; and
(3) Six locations with lead levels below 300 mg/kg.

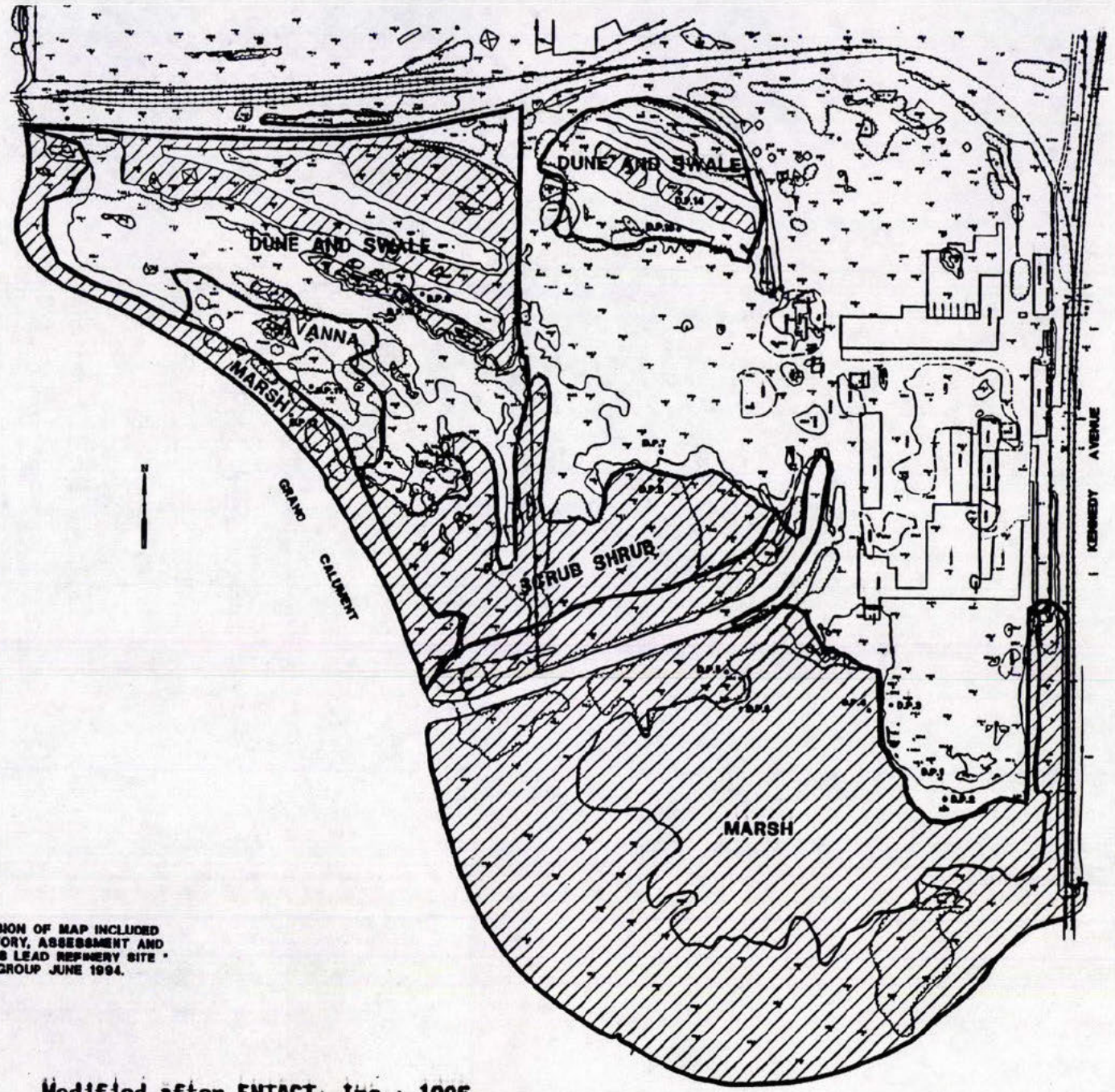
On or about December 1986, IDEM collected four samples from the blast furnace slag waste disposal on-site for analysis for determining if the slag exhibited the toxicity characteristic of hazardous waste. The test results indicated that the slag was hazardous for lead.


B 4
B 5
B 3

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

HABITAT & WETLAND DELINEATION

ATTACHMENT C



WETLAND

D.P. = DATA POINT

REPRODUCED AND SCALED VERSION OF MAP INCLUDED IN " A BIOLOGICAL SITE INVENTORY, ASSESSMENT AND WETLAND DELINEATION FOR: USS LEAD REFINERY SITE " PREPARED BY THE WHITE OAK GROUP JUNE 1994.

SCALE : 1" = 285'

Modified after ENTACT, Inc., 1995

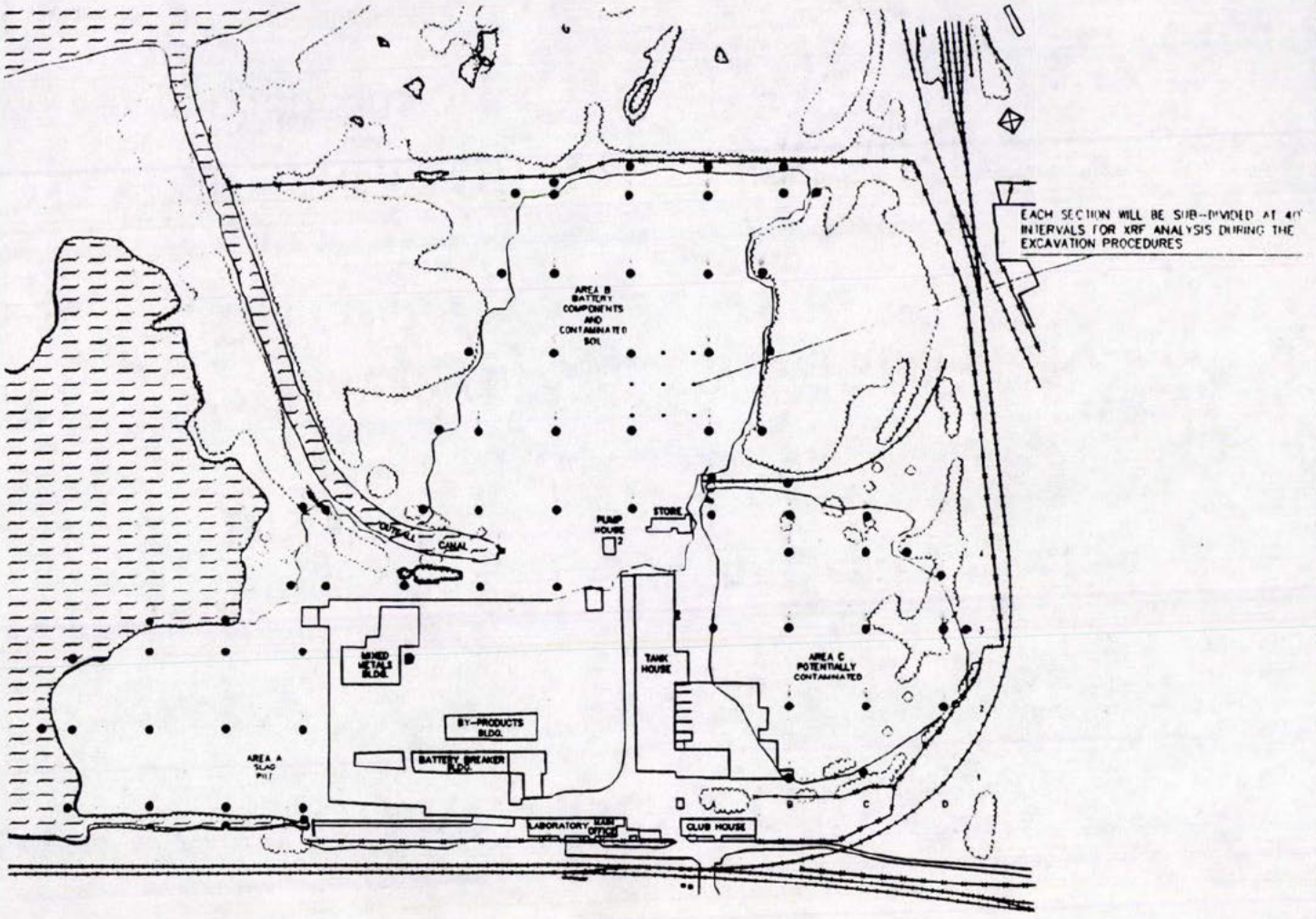
EVALUATED ALTERNATIVES

ALTERNATIVE 1: Removal, Consolidation, and On-Site Disposal

ALTERNATIVE 2: Removal, On-Site Treatment, and Off-site Disposal

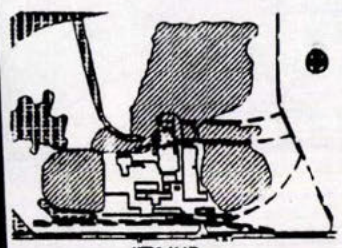
ALTERNATIVE 3: Removal, Off-Site Treatment, and Off-site Disposal

CONTAMINATED AREAS
FIGURE 8



LEGEND

- APPROXIMATE LOCATIONS FOR FINAL VERIFICATION SAMPLES – 100' GRID SPACING
- APPROXIMATE LOCATIONS FOR XRF ANALYSIS DURING EXCAVATION
- REMEDIATION AREA



KEY MAP

Scale : 1/2 Date : 1/94 Drawn By : ---- Checked By : ---- SHEET ___ OF ___ File : ---.dgn P.C. : ---- Project No. : 620	CONTAMINATED AREAS FIGURE 8	USS LEAD REFINERY, INC. EAST CHICAGO, INDIANA	NO. DATE REVISION APP.	ENTACT

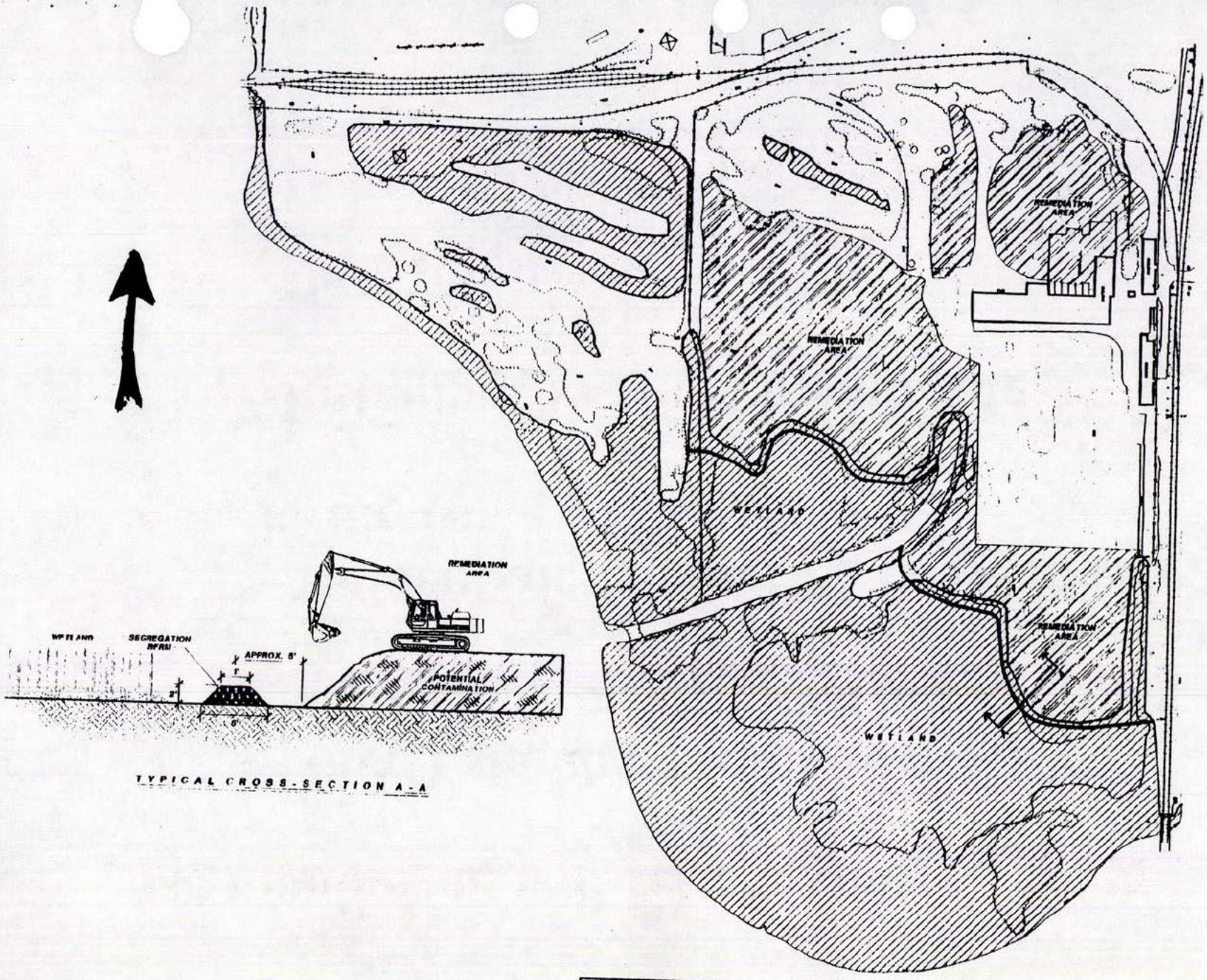
Air monitoring and release control

-NAAQ standard for lead= 1.5 micrograms per cubic meter

-Ambient air monitoring at perimeter, area locations

-Instantaneous field monitoring

-Dust suppression



TYPICAL CROSS-SECTION A-A

Scale : 1"=130' Date : 10/98 Drawn By : ---- Checked By : ---- SHEET 1 OF 1 File : 1240-044 P.C. : ---- Project No. : 1240	U.S.S. LEAD REFINERY, INC. EAST CHICAGO, INDIANA	CONSTRUCTION OF SEGREGATION BERMS FIGURE 6A

F. SUMMARY OF ALTERNATIVES

The interim measure alternatives for the cleanup of contaminant sources and the most contaminated soils and sediments at the USS Lead facility are presented below.

- o Alternative 1: Removal, Consolidation, and On-Site Disposal.
- o Alternative 2: Removal, On-Site Treatment, and Off-Site Disposal.
- o Alternative 3: Removal, Off-Site Treatment, and Off-Site Disposal.

Each of the interim measures alternatives will also include the following activity:

- Plug and/or cap sewer and water lines from the former process area of the facility.
- Comply with all requirements of the U.S. Army Nationwide #38 Section 404 Permit.

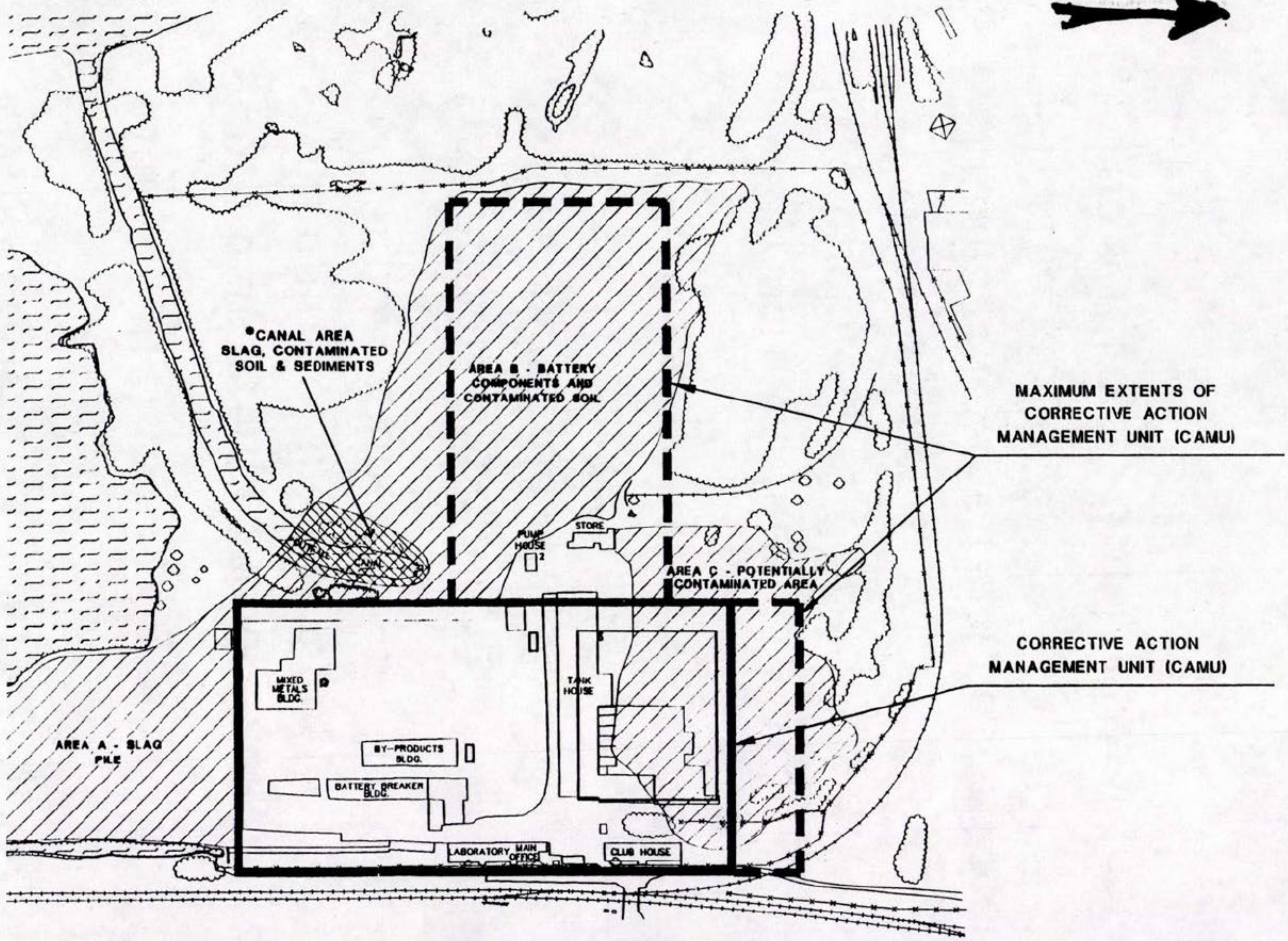
ECOLOGICAL HABITAT PROTECTION

- U.S. Army Nationwide #38 Section 404 Permit
  - Earthern berm
  - Revegetation Plan

- Federal Candidate Species
  - Marsh Wren
  - Franklin Ground Squirrel

MAXIMUM EXTENTS OF CAMU

FIGURE 7A



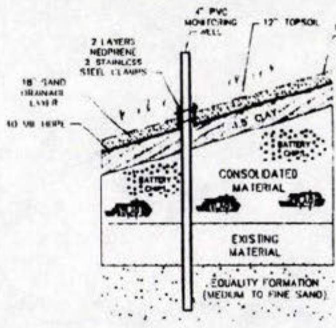
CAMU & REMEDIATION AREAS
FIGURE 7A

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

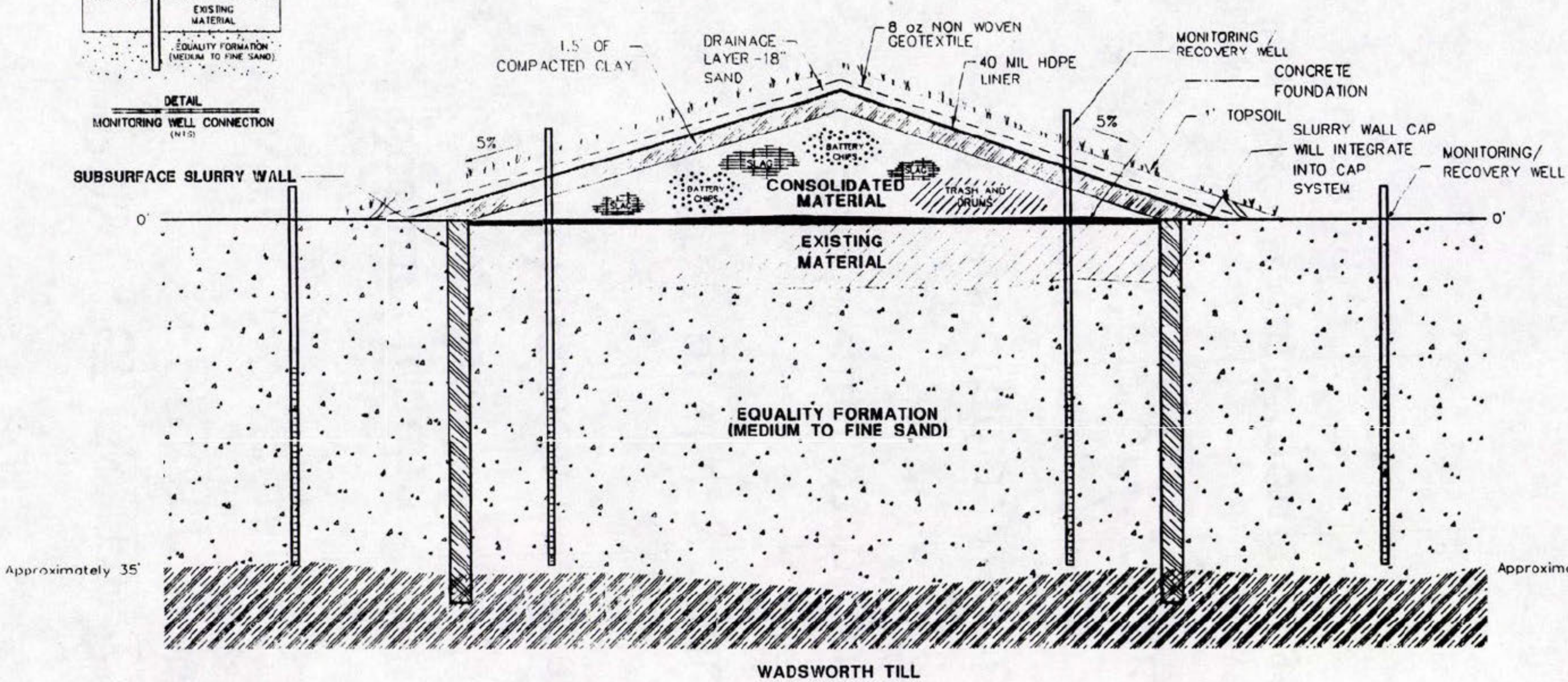
DESIGN FOR CORRECTIVE ACTION MANAGEMENT UNIT (CAMU)

- Slurry wall
- Inward differential head gradient
  - Pumping of interior wells
  - Monitor mounding
- Groundwater monitoring
  - Inside/Outside opposing wells
  - Nested exterior wells
- Cover
  - Low permeability clay layer - thickness= 3 feet
  - Synthetic liner
  - Drainage layer - Thickness= 3 feet
  - Textile fabric
  - Top soil layer - Thickness= 1 foot

CAP DESIGN DETAILS
FIGURE 10



DETAIL
MONITORING WELL CONNECTION
(NTS)



SECTION A 2 2

Scale NTS Date 10/90	CAP DESIGN DETAILS	USS LEAD REFINING, INC.	1	10/95	REVISED DRAINAGE LAYER	
Drawn By : ----	FIGURE 10	EAST CHICAGO, INDIANA	NO.	DATE	REVISION	APP.
Checked By : ----						
SHEET ____ OF ____						
File : 1340-030 P.C. : ----						
Project No. 030						

ENTACT

POST - CLOSURE CARE PERMIT
(30 years)

- Security fencing

- Cap inspection and maintenance

- Integrity of slurry wall

- Ground-water monitoring

- Maintain drainage structures

- Resurveying of bechmarks

- Other requirements as specified in the permit

Decision Criteria for Designation of Corrective Action Management Unit (CAMU) under 40 CRF §264.552 (c)

The Regional Administrator shall designate a CAMU in accordance with the following:

(1) The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

(3) The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

(6) The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

ALTERNATIVE 2:

Removal, On-Site Treatment, and Off-Site Disposal

ALTERNATIVE 3:

Removal, Off-Site Treatment, and Off-Site Disposal

SUMMARY EVALUATION OF ALTERNATIVES

			ALTERNATIVE #1		ALTERNATIVE #2		ALTERNATIVE #3	
			Hot spots	Underlying contamination	Hot spots	Underlying contamination	Hot spots	Underlying contamination
TECHNICAL	Performance	Effectiveness and useful life	X	X	X	o	X	o
	Reliability	O & M	X	X	o	o	o	o
		Toxicity (T) mobility (M), and volume (V)	M	M	T, M	o	T, M	o
	Implementability	Constructability	X	X	X	o	X	o
		Implementing time	1 - 2 YRS		1 - 2 YRS	o	1 YR	o
	Safety	Workers/ community/ environment	X	X	X	o	X	o
HUMAN HEALTH	Mitigate risks to human health and environment		X	X	X	o	X	o
ENVIRONMENTAL	Greatest improvement over shortest period of time		X	X	X	o	X	o
COST	Capital and Operation & Maintenance		$ 5.55 million		$12.2 million	o	$ 19.0 million	o
INSTITUTIONAL	Federal, State, and Local Standards		X	X	X	o	X	o

ALTERNATIVE 1: Removal, Consolidation, and Disposal
ALTERNATIVE 2: Removal, On-Site Treatment, and Off-Site Disposal
ALTERNATIVE 3: Removal, Off-Site Treatment, and Off-Site Disposal

X FULLY MEETS CRITERIA
o DOES NOT MEET CRITERIA

G. EVALUATION OF THE PROPOSED PARTIAL REMEDY AND ALTERNATIVES

The proposed partial remedy for cleaning up metal contaminant sources and the most contaminated soils and sediments at the USS Lead facility is
Alternative 1: Removal, Consolidation, and On-Site Disposal. The following discussion profiles the performance of the proposed partial remedy against the technical, human health, environmental, and institutional criteria.

1. Technical

Technical criteria were compared on a relative basis between each of the interim measure alternatives and their components. Alternative 1 (Removal, Consolidation, and On-Site Disposal) was found to best meet all the technical criteria goals of performance, reliability, implementability, and safety.

Performance of the proposed partial remedy is evaluated through effectiveness and useful life. Alternative 1 would be effective in removing, consolidating, and providing on-site disposal in a Corrective Action Management Unit (CAMU) for remediation wastes. In addition, Alternative 1 would be effective in containing releases from remediation wastes in addition to releases from soil contamination within the CAMU's boundary, through the use of a perimeter slurry wall, a system of ground-water wells to maintain an inward hydraulic gradient and monitor for releases, and a composite cover. While Alternatives 2 and 3 would be effective as far as providing stabilization of the remediation wastes, they would not provide long term care to address releases from contaminated soils that remain below excavated depth.

Reliability of the proposed partial remedy is evaluated through Operation and Maintenance (O & M) requirements, demonstrated reliability, and toxicity, mobility, and volume of the contaminants. Under Alternative 1, long-term reliability would be maintained by monitoring the CAMU which would be closed as a landfill and providing maintenance needed to insure integrity of the proposed partial remedy during the post-closure care period (30 years or more). With regards to reliability, Alternatives 2 and 3 lack O & M requirements.

Implementability of the proposed partial remedy is evaluated through its constructability and the time required for implementation. With regards to constructability, Alternative 1 would be easily installed using a phased expansion. Also, Alternative 1 would facilitate the closure in place of the three hazardous waste piles while providing long-term containment of remediation wastes and soil contamination within the CAMU's boundaries. In addition, Alternative 1 does not provide any

17

PUBLIC COMMENT PERIOD ON PROPOSED REMEDY FOR U.S.S. LEAD Refinery, Inc.

Alternative 1: Removal, consolidation and On-Site Treatment

MAY 20 - JUNE 25, 1996

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) HEARING

Terri Wilson, Hearing Officer

Date: Thursday, June 20, 1996

Time: 6:30 p.m.

Place: Riley Park Community Center
1005 E. Chicago Avenue
East Chicago, Indiana 46312

Before DOROTHY M. SULLIVAN, Court Reporter
Notary Public, Lake County, Indiana.

WILL FILE LEGALS
Court Reporters
118 N. Van Rensselaer
Rensselaer, Indiana 47978

APPEARANCES:

MS. TERRI WILSON, Hearing Officer
MS. MIRTHA CAPIRO, Enforcement Officer
MR. MICHAEL MCCLARY, Chicago EPA Attorney

SPEAKERS ALSO PRESENT:

Non-Responsive PII

MS. WILSON: Please come to order. Good evening, ladies and gentlemen, my name is Terry Wilson. I am your hearing officer. To my left is Mirtha Capiro. She's the enforcement for the cite. And we also have with us Mike McClary, and he's our U.S. EPA attorney for the site. All three of us represent the Chicago office of the United States Environmental Protection Agency, or U.S. EPA for short. We're here tonight to listen to your questions and comments concerning U.S. EPA's intent to accept U.S.S. Lead Refinery proposal of a parcel remedy for cleanup of contamination at its East Chicago, Indiana site.

Tonight's hearing will have three parts. First, we will provide some background information. Second, we will take your comments for the record. Third, we will have an informal question and answer session, if required.

With the exception of the informal question and answer session, the court reporter is taking -- is making a transcript of everything that is being said here tonight, and that transcript will become part of the official agency administrative record on this facility.

The public reciprocation procedures pertinent to RCRA hazardous waste permit can be found under the 40 Code of Federal Regulations, Part 124 -- which is being

provided as a handout tonight -- and 270.42.

The Resource Conservation and Recovery, or RCRA, R-C-R-A, as it is more commonly known, is a body of regulations intended to ensure the responsible management of hazardous waste. RCRA is designed to be delegated to the States for implementation.

At this time, Indiana is authorized for most of the RCRA programs; however, proposals for parcel remediation cleanup is still administered at the Federal level.

Mirtha Capiro will now give you background information on this proposed action. Afterwards, we will take your comments for the record.

MS. CAPIRO: Good evening. My name is Mirtha Capiro. I am an enforcement officer with the United States Environmental Protections Agency in Chicago. I am also the project manager for the U.S.S. Lead Refinery, Inc. site. I would like to thank everyone from the audience for attending our hearing this evening. This evening, I would like to read some paragraphs of my speech for the transcript. Then, I would also like to show for the transcript some slides illustrating, in detail, the subject that I will be discussing this evening.

U.S.S. Lead is subject to the requirements of a November 18, 1993 Order from U.S. EPA for implementing a

corrective action program under the Resource Conservation and Recovery Act (or RCRA) to address contamination on and off-site the facility. Although no longer in operation, U.S.S. Lead is subject to the requirements for implementing a RCRA corrective action program until it is able to demonstrate its inability to pay for cleanups. In addition, U.S.S. Lead is subject to the requirements of the Indiana Department of Environmental Management for closure of three hazardous waste piles.

Under the U.S. EPA order, U.S.S. Lead has been required to initially conduct interim measures and later conduct a facility investigation to evaluate the contamination impacting the areas outside the facility such as communities and wetlands. If necessary, additional interim measures may be implemented at any time under the RCRA corrective action program. In 1994, U.S.S. Lead conducted an initial interim measure to control soil, dust and runoff from areas of contaminated soils that had been exposed during building demolition activities. In 1992, prior to demolition activities, U.S.S. Lead had removed the contents of the three waste piles formerly located in the building complex area and sent them off-site.

As part of additional interim measures for U.S.S. Lead, U.S. EPA is presently proposing a partial remedy for the site that includes the designation of a

CAMU. Interim measures are a way of expediting protection of human health and the environment and are only a partial remedy. Therefore, the U.S. EPA would not normally undergo a public comment period. However, the U.S. EPA riot is requesting public comments on the proposed partial remedy for U.S.S. Lead because of the CAMU designation it includes. Consequently, the U.S. EPA has issued a Statement of Basis for U.S.S. Lead as part of its public participation responsibilities for designation of a CAMU under RCRA. The CAMU is an area within the facility that is designated for the management of remediation wastes. The CAMU for U.S.S. Lead will contain remediation wastes from the site and will facilitate the closure of three waste piles which are subject to the regulations from the Indiana Department of Environmental Management.

Now, I would like to show some slides illustrating the details of U.S. EPA's proposed partial remedy and other remedy alternatives that were evaluated.

I would like to start with slide Number 1. U.S. Lead is located in a meander from the north bank of the Grand Calumet River, on the west side of the Kennedy expressway. This facility is a former secondary lead smelter for lead reprocessing from automobile batteries.

MR. MCCLARY: Can everyone see the red dot that's being flashed on the screen? Probably not.

MS. CAPIRO: Slide Number 2, please. The site has 79 acres and only 25 acres have been dedicated to operations. Most of the buildings that were dedicated to facility operations have been demolished and the building foundations have been left in place. There is an inlet canal at the site that was connected to a former facility's outfall.

Four types of wastes were generated as a result of this smelting operations: blast furnace slag which was stored in the south area, calcium sulfate sludge from sulfuric acid treatment which was stored in the two waste piles located outside the Old Silver Refinery Site and the Change House, lead-containing dust emitted by the blast furnace stack which was also stored in the waste pile located inside the Tank House building, and battery case chips collected in the northwest area of the site. The contaminants from the waste at the site includes arsenic, barium, cadmium, chromium, selenium, mercury, and lead. This last having the highest concentrations.

Slide Number 3, please. The contamination at the site has not been fully characterized. However, U.S.S. Lead has offered to U.S. EPA some preliminary lead data it collected in 1993 for the top six inches of soil at areas at the site. As you can see, the lead contamination in soils at the site is widespread and mostly above 5,000

milligrams per kilogram, ranging up to around 250,000 kilograms per kilograms or 25 percent lead.

Slide Number 4. The nearest residential area is located approximately half mile to the north of the site. A U.S. EPA inspection report dated October 15, 1985, indicates that there are elevated lead levels in soils in the vicinity of the north of the site. As I mentioned during my introduction, U.S.S. Lead is required to conduct a facility investigation upon completion of the proposed partial remedy under interim measures that I am discussing this evening. The facility investigation will be conducted to determine the contamination present outside the facility that may be related to U.S.S. Lead's past activities. The facility investigation will include determining the impact of contamination on nearby communities, the Grand Calumet River, and other nearby areas.

Slide 4A. I would like to take the opportunity to correct a typographical error on page 5 of the Statement of Basis. At six off-site locations in this area, the lead levels were incorrectly stated as 11,000 milligrams per kilograms instead of the correct figure of 1,100 milligrams per kilogram lead.

Slide Number 5, please. This is the extension of the 100-year flood plain at the site.

Slide Number 6.

MR. MCCLARY: This is the flood plain. This area is a flood plain.

MS. CAPIRO: Slide Number 6. A Habitat and Wetland Delineation study has been conducted at the site. 39.8 acres of jurisdictional wetlands have been identified at the site. They include the habitat areas of Dune and Swale, Savanna, Scrub Shrub, and Marsh.

MR. MCCLARY: All the areas with the diagonal lines here is wetlands area.

MS. CAPIRO: Slide Number 7. The U.S. EPA has evaluated three alternatives for the implementation of interim measure of the facility:

Alternative 1: Removal, consolidation, and on-site disposal.

Alternative 2: Removal, on-site treatment, and off-site disposal.

Alternative 3: Removal, off-site treatment, and off-site disposal.

As I mentioned in my introduction, interim measures are a way of expediting the protection of human health and the environment and are only partial remedies.

Slide Number 8, please. In my next four slides I will describe the common elements for all the alternatives.

Some of the common elements include the

removal of lead slag, battery case chips, and the most contaminated soils with lead levels equal or greater than 500 milligrams per kilograms of lead.

These being the component area and are all widespread over the side. The concentration level 500 milligrams per kilogram of lead.

Slide Number 8, please. I'm sorry, Number 9. Air monitoring will be conducted during the implementation of the interim measures.

Slide Number 10. The three alternatives will include ecological habitat protection. The U.S. Army has issued a permit to U.S.S. Lead in relation to implementation of the interim measures. The permit includes the construction of an earthen berm around impacted wetlands and a revegetation plan for the affected area.

Slide Number 10A. I would like to take the opportunity to point out an amendment to Section F of the Statement of Basis entitled "Summary of Alternatives," page 7, immediately after line 10. The amendment consists of a second bullet that will read: "Comply with all requirements of the U.S. Army Nationwide Number 38, Section 404 permit."

Slide Number 11, please. Also common to the three alternatives, the Marsh Wren and the Franklin Ground

squirrel have been identified as Federal candidate species that may potentially be affected by the interim measures activities at the site. Therefore, the interim measures will be conducted ensuring the protection of these species.

Next slide, please. Now, I would like to describe each alternative in detail. Alternative 1 includes the removal activities I described as common element, consolidation, and disposal in a Corrective Action Management Unit, or CAMU. The initial phase for CAMU construction includes an area of 7 acres. A subsequent expansion phase will include 7 additional acres extending to a parcel west of the initial CAMU and a smaller parcel to the north. This phased expansion will allow additional capacity for remediation wastes as needed for an approximate total capacity of 100,000 cubic yards of remediation waste. The use of the CAMU will allow the on-site disposal of remediation wastes from removal activities and will facilitate the closure of the three waste piles subject to IDEM requirements.

You may remember --

MR. MCCLARY: Mirtha, they can't hear you.

MS. CAPIRO: There was a waste Tank House -- located at the site over to the south. They are

included in the phase one of the CAMU.

Also, contamination from areas outside the site related to U.S.S. Lead's past activities may be placed in the CAMU only with the approval by U.S. EPA.

Slide Number 13, please. The design for the CAMU includes the following: A perimeter slurry wall approximately 3 feet wide and 33 to 43 feet deep, that keys into the Wadsworth Till, an inward hydraulic gradient, groundwater monitoring, and an engineered cover.

Slide Number 13A, please. This slide illustrates some of the CAMU design components: a perimeter slurry wall, wells from groundwater system, and an engineered cover.

This would be the perimeter of the wall.

MR. MCCLARY: Speak --

MS. CAPIRO: -- the ground water wells on each side of the wall and on the top. This is basically the section of the CAMU, or Corrective Management Active Unit.

Slide 14. Thirty-year post-closure care monitoring will be provided for the CAMU, in accordance with U.S. EPA requirements, and for the three waste piles contained in the CAMU, in accordance with the Indiana Department of Environmental Management Requirement.

Slide Number 15. For this slide I would like

to indicate that the CAMU proposed by U.S.S. Lead should meet the criteria for CAMU designation under U.S. EPA regulations.

The criteria has seven form elements that are indicated to be made for the U.S.S. Lead contamination.

The CAMU designation should address public comments received during the public comment.

Slide Number 16, please. Alternative 2: Removal, on-site treatment, and off-site disposal is one of the alternatives we --

Under this alternative, removal activities described earlier as common elements will be performed. Upon excavation, wastes will be treated by stabilization on-site and later sent off-site for disposal.

Slide Number 17. Alternative 3: Removal, off-site treatment, and off-site disposal.

Under this alternative, removal activities described earlier as common elements will be performed. Upon excavation, wastes will be sent off-site for stabilization treatment and disposal.

Slide Number 18. I will now provide a summary of the evaluation of the alternatives I have described based on the technical, human health, environmental, and institutional criteria.

For the Technical criteria we measured

performance, reliability, implementability and safety.

Performance. Performance is evaluated through effectiveness and useful life. Alternatives 2 and 3 as you can -- our slide includes implementation at the bottom -- describing the alternatives. Unfortunately, it doesn't show it on the screen, but it shows on the bottom. I think I would like to give everyone a chance to see the ledge at the bottom.

MR. MCCLARY: An "x" means that it meets fully the criteria and a circle means that it does not fully meet the criteria.

MS. CAPIRO: Alternatives 2 and 3 will not offer longtime effectiveness because the concentrations of metals, specially lead concentrations up to 500 milligrams per kilograms of lead, would remain indefinitely susceptible to leaching into groundwater. As I pointed out earlier, the level of 500 milligrams per kilograms of lead is not a level selected based on health and ecological risk assessment information. It is rather a "removal level" to address "hot spots" under the interim measures. Alternative 1 will remain effective over the long-term provided that the integrity of the cover and the slurry wall is well maintained.

I would like to go back to slide number 18A for clarification, and then come back to 18. I would like

to point out an amendment to Section G.1 of the Statement of Basis, page 10, Paragraph 2, first sentence. The first sentence will be revised from: "Reliability of the proposed partial remedy is evaluated through operation and maintenance requirements and demonstrated reliability" to "Reliability of the proposed partial remedy is evaluated through operation and maintenance requirements, demonstrated reliability, and the toxicity, mobility, and volume of the contaminants."

MR. MCCLARY: Can everyone see the changes being made here?

MS. CAPIRO: We would like to go back to slide 18. Reliability. Reliability of the proposed remedy is evaluated through operation and maintenance requirements and demonstrated reliability. Alternative 1 would not reduce the toxicity of the contaminants, but would significantly reduce their mobility by means of a cap, slurry wall, and inward hydraulic. Neither Alternatives 2 or 3 meets this criterion because neither involves operation and maintenance. Alternatives 2 and 3 do not reduce the mobility nor the toxicity of the contaminants below excavated depth at levels up to 500 milligrams per kilograms of lead.

Implementability. Implementability is evaluated through its constructability and the time

required for implementation. Alternatives 1 and 2 would be completed in 1 to 2 years. Alternative 3 would be completed in 1 year.

Safety. Safety of the proposed remedy is evaluated for workers, nearby communities, and the local environment. Alternative 3 poses some risks with regards to off-site transport of remediation wastes. There are no risks associated with Alternatives 1 and 2.

For Alternative 1 and 2 -- and for two -- for the situation which we're excavating, it involves 500 kilograms of lead. Anything below 500 milligrams will remain on the ground.

Human health. For the Human Health criteria, U.S. EPA measured the ability to mitigate risks to humans or to the environment by exposure to contaminants. While all alternatives meet this criteria, Alternatives 2 and 3 will not mitigate the leaching of contaminated soils of up to 500 milligrams per kilogram of lead.

Environmental. The U.S. EPA measured the ability to provide the greatest improvement to the environment over the shortest period of time. Although Alternatives 2 and 3 would be implemented relatively quickly and would provide removal of hot spots, contamination up to 500 milligrams per kilograms of lead could leach into the groundwater.

Cost Estimate. Cost were greater for Alternative 2 and 3. Alternative 1 maintained its cost effectiveness at the same time it provides long-term monitoring.

Institutional. All alternatives will meet applicable Federal, State, and local requirements, including the requirements under the U.S. Army as I indicated earlier.

Slide Number 19, please. Based on the evaluation I presented, the U.S. EPA has proposed Alternative 1 for implementation as part of the Interim Measures at the U.S.S. Lead site.

With this I conclude my presentation.

I would like to mention that at the U.S. EPA table there is a copy of the ISM Work Plan and the Administrative Record that anyone interested can consult this evening. Those materials are also available for public view at the East Chicago, Gary, and Whiting Libraries. At the table there are also copies of the Statement of Basis and the slides I have presented this evening that anyone interested can take.

Also, I would like to mention that representatives from U.S.S. Lead and ENTACT, the contractor for U.S.S. Lead, are in the audience this evening. They have set up a table with their material for anyone

interested. Also, I would like to thank U.S.S. Lead for providing the various enlarged diagrams and photographs you can see this evening.

Again, to everyone. Thanks for coming this evening.

MS. WILSON: Thank you, Mirtha. Regarding the public participation regulations found in 40 CFR 124.10, the U.S. EPA is required to publish a public notice in a general circulation newspaper and broadcast over a local radio station at least 30 days before a hearing is held. The notice must allow at least 45 days for a public comment -- for public comments on the proposed action. These commitments were met by a public notice in the Gary Post Tribune and on Radio Station WLTH on Friday, May 17, 1996. The comment period for this action ends on June 25, 1996. A total of 45 days.

A public hearing, which is optional, is being held here tonight. On the registration table is a copy of procedures to appeal U.S. EPA's decisions. The appeal procedures are provided and copies of 40 CFR 124.19.

If you desire a copy of the transcript of this hearing and a copy of the U.S. EPA's official response to the comments, please indicate that next to your name and address on the registration card. And this is what the registration card looks like. So anyone who hasn't filled

one out, please fill it out. It's not only for making comments, it's just to let us know you were here tonight.

We would like to point out that U.S. EPA's response to comments is free. A transcript costs 15 cents a page, if it exceeds 167 pages. It is free if it is less than that in length.

If you have not filled out a registration card, we will appreciate your doing so before you leave. Registration cards are available at the registration table. You may also indicate on your registration card if you are interested in being added to U.S. EPA's mailing list for the U.S.S. Lead site.

All persons wishing to speak tonight should indicate their desire to do so by marking "yes" on their registration card where it says, "Do you wish to make a statement?" If you decide you want to speak and have not turned in a registration card, please fill it out. Please fill out a registration card and place it on the registration table.

You may appeal the regional administrative decision only if you submit commits on the draft permit during the public comment period or if you participate in this hearing.

Now we will go directly to official comments. I will call the speakers in the order their request to

speak were received. Your name -- when your name is called, please give your name and spell your last name for the court reporter. If you have written comments, but do not wish to speak, please place them on the registration table before you leave tonight.

So that everyone who wishes to speak has a change to do so, please limit your comments to ten minutes. You may submit longer comments in writing tonight or before the close of the public comment period, which ends on June 25, 1996. We will now begin to receive your comments.

Would Non-Responsive PII please approach the microphone. Please speak clearly and remember to repeat your last name and spell it for the court reporter.

Non-Responsive PII [redacted] [redacted] [redacted] Good old Irish name.

And my input, I'm a citizen that's interested here in the clean environment. And that is why I highly felt to go ahead and take this U.S.S. Lead and spend my time looking into it and make a few comments which I hope will be constructive.

Regarding U.S. Lead Refinery, Incorporated, a hazardous waste facility, I vehemently oppose the proposed partial remedy for the on-site disposal for the potential trip to human health, bird, animal, aquatic life -- who

will not be removed.

Let us examine the kind and amount of hazardous and toxic materials on U.S.S. Lead property and the risk to human health and the environment they include. Arsenic, barium, cadmium, mercury, selenium and primary lead, which goes to the amounts of 23,300 milligrams per kilogram. Not only is the company site contaminated, but off-site tests indicate that at these six locations of U.S.S. Lead property, the lead levels were greater or equal to 11,000 milligrams per kiloliter. Speaking to the gentleman from the lead refinery, they claimed it was only 1,100 instead of 11,000; that it is a typographical error. Anyway, so I've been informed.

How much toxic pollutant and to what degree has the Grand Calumet River been contaminated by surface water runoff? Leaching, dust emanating from the addiction -- U.S.S. Lead property. No one knows. It has been a great amount since they've been operating that way for 15 years.

I just wondered what happened to -- (inaudible) corporate law, 92-500, which was implemented in 1972 by the EPA, in that no action was taken by your agency.

The wetland area has been filled on slag which came from the dust. That slag contained arsenic, barium,

chromium lead, selenium. All are hazardous constituents and they were used as wetland fill. This is criminal.

The contaminated marsh water runoff and convenient canal granting the three quarters of the property all enter into the Grand Calumet River, which in turn empties into Lake Michigan, the chief source of our drinking water. God knows how much ill-affect that has had on the population drinking that water.

CAMU. Corrective Action Management Unit is implemented as far as entering civilization measure in the opinion -- in my opinion, is only a superficial and partial remedy to this problem. It will remove the contaminated on-site contaminants and contaminated soil, sediments from the facility. The potential threat to human health, the environment will be there. The object of a cleanup is to remove (inaudible) and potential danger to the environment.

I very much not -- the proposed plan. I feel it's not a remedy to the present situation or to the presence solution.

I am very much opposed to the present plan on on-site disposal on the 14 -- 7 or 14 acres on the U.S.S. Property. The volume of forty thousand cubic yards is questionable as to the structure of materials in this case -- (inaudible) -- liner of 18 inches.

What will be the pressure extended by the forty thousand cubic yards of hazardous material? What effect will the weather have? Rain, freezing temperature, heat. How about drying, cracking of the 18-inch great liner. Rips, tears, punctures, are also a probability. This proposal has a greater risk potential and will not be implemented or considered.

A common sense opposed to this would be to your Alternative Number 3. To solve the problem once and for all. Occurrency (phonetically) is a sure way for a problem in a positive manner. And let's solve this, as I said again, once and for all.

As a little pun, I would say that when you clean your house you don't put your garbage in the closet. Thank you.

MS. WILSON: Thank you, [redacted]

Our next speaker is [redacted] as you approach the mike, would you please speak clearly and spell your name for the court reporter. Thank you.

[redacted] I have concerns about the construction of the CAMU, but I'm going to submit those in written comments, particularly since I have some questions

that will have to come after this.

But I would like to comment on the level of lead that was determined to be in soil near the facility of U.S.S. Lead. And I'm referring to an inspection report that was dated October 15, 1985, called Hammond Lead, U.S.S. Lead, Refining Soil Survey, Hammond, in East Chicago, Indiana.

Ms. Capiro stated that the amount of 11,000 milligrams per kilogram was incorrect. However, it's stated in the survey that that's the level, and a duplicate sample was done at the site that then was considered to be 8,900 milligrams per kilograms.

So I would say that the amount should not be limited to whatever it was -- 500 to 1,100 -- but rather somewhere in the realm of 10,000 milligrams per kilograms. We have other levels in the neighborhood northeast and north of the site of 8,300 milligrams per kilogram, 1,700 milligrams per kilogram, and 1,100 and 540.

Now, the amount that is considered a cleanup level for residential lead, if I understand this correctly, is 400 per milligrams per kilograms. So any of those levels are too high for residential neighborhoods.

This study was done in 1985. In the record, the material states that the suggestion -- suggested decision logic for residential scenarios were CRCRA

(phonetically) -- RCRA corrective actions would be to determine the soil lead concentration, and if it's greater than 400 ppm's (phonetically), you proceed to step two. And that is to evaluate probable land use and develop exposure scenario. Select appropriate sights to city data based on selected scenarios. And that would be sampling soil and dust.

Available blood lead data. If blood lead data is available, consult the guidance manual. If blood lead data are not available, regional risk assessors (phonetically) and site managers should consider the appropriateness of conducting a blood lead study to supplement available data. Step four, running I.E.U.B.K. model with sites to city data. To estimate risks and evaluate the exposure pathways. If blood lead data are available, compare the data to the model results. Where risks are significant, evaluate remedial option.

I believe that these -- that this set of activities should be applied to the residential neighborhoods that are considered to be at risk because of the previous samples. I believe this should be going on parallel to the remedial actions that are going on at this site. Not that this is not significant and important, it's one of the places where this risk came from.

But I do believe that the community deserves

the remedial activities and the attention that should go to these children and people living in this community.

Lead can be absorbed into your body by inhalation, breathing, and ingestion and eating. When lead is scattered in the air, a dust, fume or mist can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational absorption, and I assume residential area lead absorption.

My comment tonight is that the citizen risk and impact has not been properly addressed here. It appears that there is a requirement to do that through RCRA or CRCRA, and I am asking that EPA carry through on this from the assistance of their responsible parties. Thank you.

MS. WILSON: Okay. Thank you, [redacted]. [redacted]. Our third speaker is [redacted]. [redacted], if you could please speak clearly and remember to spell your name for the court reporter. Thank you.

[redacted] I don't understand why you gave us alternatives when you already decided what kind of alternative you're going to use. If that's what you are going to do, you should just put -- why say Alternative 2, Alternative 3. I would have liked to have seen 2 or 3

used.

I noticed in the article and in the papers that you gave us, that U.S. Lead is going to monitor and maintain and do some groundwater monitoring. I would like more details about what they intend to do during the next 30 years. I'm very concerned about the health assessment risk -- that you really should have gone into more detail. I would like to have seen Alternative 3.

And I would like to know, it says, "off-site treatment and on-site treatment." Or is there a difference. Because you just made that statement and I didn't see if there was some. And I would like to know why you can't go off-site if they're both the same. Just take it off-site. I'd like to see that stuff removed. I consider it very dangerous.

And I would also like to add that they had some people working there at the beginning, and they were digging holes and taking bags of soil and burying them. And I'd like to know what that was, and I would like that problem addressed, because the people who did it asked me to ask and to bring that up. And I am again doing so.

I really would like to see Alternative 3. Thank you.

MS. WILSON: Thank you, Non-Responsive PII. Our forth speaker is Non-Responsive PII. I don't see

him. Okay. He left. Okay. Then I guess our fifth and final speaker -- well, fourth now in this case, is [redacted] -- how do you pronounce your last name?

[redacted]

[redacted]

MS. WILSON: [redacted] Okay.

[redacted]: Good evening everyone. My name is [redacted]. I'm chairman of the Citizen's Rezone and Watch (inaudible) for the City of East Chicago.

And I must say that this proposal was quite ambitious. Past expenses with the EPA has caused me to have a considerable amount of concern. Primarily predicated on the subject of [redacted] concerns. But in light of that, I'm not sure if this delegation is appropriate for people to respond to the concerns, as I might be concerned.

First of all, I'd like to know, since this is an enormous project here, who owns this land that this project is being proposed? And in addition, I'd like to know the zoning in that particular area based upon the residential issue.

And then, again, concerning the proposal and the EPA permit riders and their amount of latitude that they have in changing the specifics. Technological specifications in regards to -- (inaudible) -- synthetic

liners for these contaminants, and to permit --

(INTERFERENCE THROUGHOUT THE ROOM.)

THE COURT REPORTER: Excuse me. I can't hear him.

Non-Responsive PII: -- rather -- to alternative proposals. To what extent would the permit riders have the ability to do so or permit? There's a difference from this proposal. If I could get some type of response in regards here. I'd appreciate my organization to make the most prolific use of that. Thank you very much.

MS. WILSON: Thank you, Non-Responsive PII. I don't necessarily know that -- I don't think any responses are going to be given tonight. However, everything that's being said will be taken into consideration and someone will get back to you with a response. Which it probably will not be tonight. Okay?

Non-Responsive PII: Okay.

MS. WILSON: Thank you.

Is there anyone else who would like to make a comment or fill out a registration card at this time?

Non-Responsive PII: Question. We have a clean water act, and I'm wondering what kind of a permit and what kind of perimeters were used in the phase of U.S. Lead. Did they have a two-inch or ten-inch pipe

discharge (inaudible) -- discharge into the Grand Calumet River?

THE COURT REPORTER: I can't hear him.

Non-Responsive PII: -- of the EPA and what were the terms of these permits?

MR. MCCLARY: Are we opening up this --

MS. WILSON: Okay. Well, let's go there then. Let's say that.

First of all, I'll tell you what, if you're looking for an answer to that, then I guess what we probably need to do is close out the formal portion and then go to the --

Non-Responsive PII The gentlemen that are here from the U.S. Lead, do they know about it?

MS. WILSON: Maybe they do. Maybe we do as well. Sir, I can't say who knows and who doesn't know.

Non-Responsive PII I would request some information.

MS. WILSON: Hold on. We have to do it in a certain order, because otherwise it's going to throw me off. Okay?

We definitely want to address your concerns.

Okay. So don't think it's anything like that.

MS. CAPIRO: Would you like to make that a formal comment as well?

Non-Responsive PII I can not hear you.

MS. CAPIRO: Would you like to make that a formal comment?

Non-Responsive PII Yes. Make it part of the record.

MS. CAPIRO: Okay. All right.

MS. WILSON: She needs you to repeat it then. She can't hear you.

Non-Responsive PII All right. We have clean water acts --

MS. WILSON: No. No. No. You need to come to the microphone.

Non-Responsive PII We've had clean water acts since 1972, and my concern is, or my question is, what were the perimeters under which the U.S. Lead was allowed to dump a ten-inch discharge into the Grand Calumet River? And what were the terms and conditions in those perimeters?

MS. WILSON: Okay. Thank you. Is there anyone else that would like to add anything else to the public record?

MR. MCCLARY: Terry, explain that

we're doing formal and not informal questioning at this point.

MS. WILSON: Okay. Well, we'll see where we're going.

Well, okay, if no one else has anything --

Non-Responsive PII I have another question. Is it predetermined that you people have agreed on Alternative 1?

MR. MCCLARY: I'm Mike McClary. I'm with the office of Regional Counsel with the U.S. EPA in Chicago.

Sir, right now we have formal comments. If that's part of your formal comments, come up to the microphone again and make it. At the end of the formal comment period -- I don't think it's been explained -- we will have informal questioning and answering, which we may be able to answer -- address some of your questions. But if you'd like your question to be put on the record as the formal part of the hearing, please come forward.

Non-Responsive PII As before, I've drawn a conclusion predetermined by the EPA that they are in agreement to use Alternative 1 as a solution to the U.S.S. Lead problem.

MS. WILSON: Okay. Thank you. If at this time no one else wishes to add anything for the

actual public record, then we'll close out this particular portion of it, and then we'll go into the more informal session. Which is probably more appropriate.

So is there anyone who has requested to speak but whose name was not called? I've called everyone who requested to speak.

Let the record show that no one indicates that they requested to speak who were not called to do so.

Is there anyone who would like to enter any comments or questions into the record? Let the record show that no one indicates that they wish to enter comments.

If anyone would like to enter any written comments or questions into the official record, place them on the registration table tonight or send them to U.S. EPA, postmarked by June 25, 1996 at the following address. You can address those written comments to: Ms. Mirtha Capiro, United States Environmental Protection Agency, Region 5, Mail Code D, as in doctor, R, as in Reginald, E, as in Edward, dash 8J, as in James, 77 West Jackson Boulevard, Chicago, Illinois, 60604.

This address is also included in the public notice as well.

Now, is anyone interested in an informal question and answer session at this time? Informal meaning it will not go on the record. It's just an informal

off-the-record question and answer session.

(WHICH WERE ALL THE PROCEEDINGS REPORTED ON RECORD.)

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INFORMATION DISTRIBUTED BY U.S.S. LEAD REFINERY, INC.
AT THE PUBLIC HEARING ON JUNE 20, 1996

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U.S.S. LEAD REFINERY, INC.

U.S.S. Lead Refinery, Inc.

The U.S.S. Lead facility was constructed in the early 1900's and purchased by United States Smelting, Refining and Mining Company in 1920. U.S. Smelting was purchased by Sharon Steel Corp. in 1979. The facility was last operated as a secondary lead refinery in 1985. Sharon Steel Corp. filed bankruptcy in 1987. U.S.S. Lead Refinery, Inc. was assigned to Mining Remedial Recovery Company (MRRC) by the bankruptcy court. MRRC was formed by an action of the bankruptcy court for the explicit purpose of cleaning up properties with environmental problems. MRRC has never operated nor does it intend to ever operate any portion of the property, its sole purpose is to restore the property to an acceptable environmental condition.

MRRC is not in the commercial reclamation business, its assignment is to clean up several properties that it now owns which were deeded to it as part of the bankruptcy settlement. However, the company has personnel with extensive reclamation experience, it has cleaned up several sites and has several projects underway. MRRC's offices are in Price, Utah. Some funding for MRRC was initially provided through actions taken by the bankruptcy settlement, additional money has been provided through loans using its property as collateral and it is to obtain further funding by selling its properties after they are cleaned up. MRRC is presently involved in many projects where different ideas and technologies are being explored.

✱HISTORY✱

The U.S.S. Lead facility was constructed in 1906. Operations at the East Chicago facility were exclusively dedicated to the production of refined, primary lead using an electrolytic process. Certain custom lead alloys were also an important product line for U.S.S. Lead.

A Mixed Metals Building and Baghouse for collecting dust and water were added in 1926. A 50 ton blast furnace was installed to process the kettle dross, but only operated on an intermittent basis due to the limited amount of kettle dross.

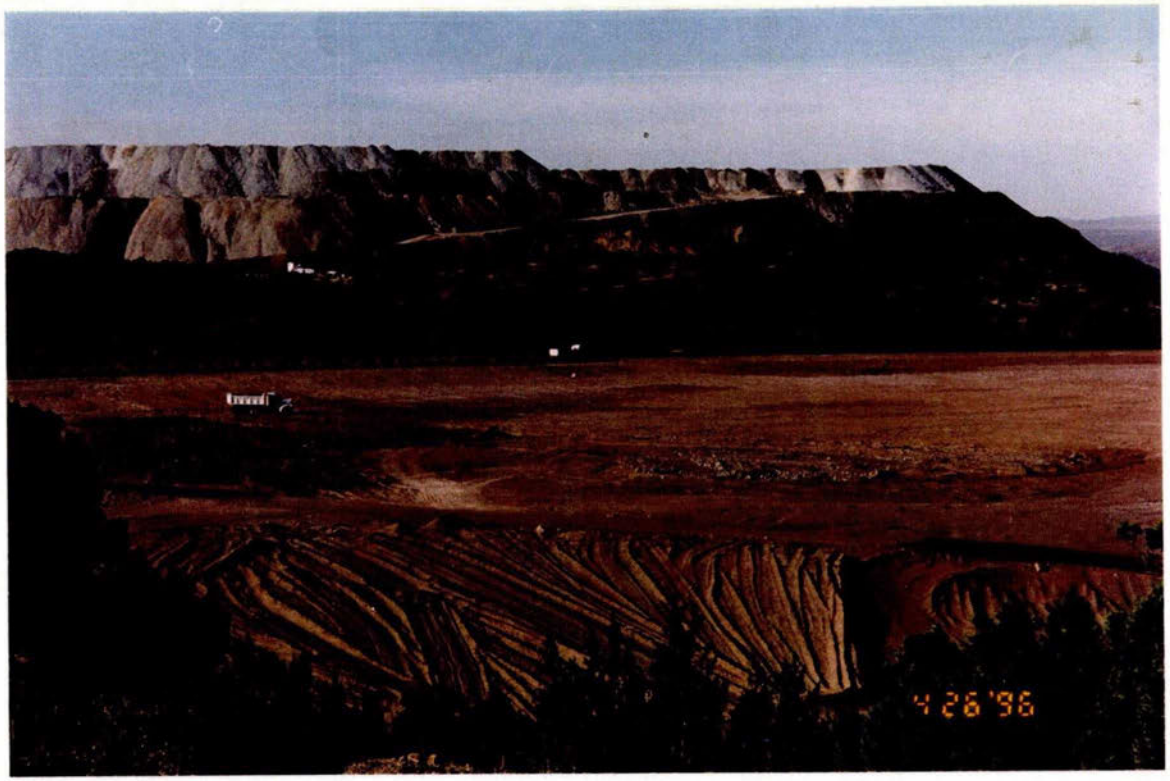
The facility was modified in the early 1970's to a secondary lead smelter for reprocessing lead from automotive batteries. A 100 ton blast furnace was installed to replace the 50 ton unit. Some of the kettles from the Mixed Metals Building were moved to the eastern end of the Tank House, which became the new Alloying Department.

During plant conversion, the Sulfuric Acid Building was converted for battery processing and renamed the Battery Breaker Building.

The furnace produced 1-ton blocks and smaller 72 lb. "pigs" of lead. These lead blocks and pigs were then remelted and refined to soft lead, antimonial lead and calcium lead. Some of the other metal alloys produced from the refining process included silver, copper, tin and antimony. All operations at the facility ceased in December of 1985.

U.S.S. Lead is currently working with EPA and the Indiana Department of Environmental Management to facilitate the environmental remediation of the site.

OTHER ENVIRONMENTAL CLEAN-UP PROJECTS



ONGOING RECLAMATION - HANOVER

1. Hanover Mill was last used in 1970-71.

2. Consisted of 75 acres of mill tailings in separate piles and ponds.

3. All the material was consolidated into one pile, graded in slopes compatible with the surrounding area, covered with topsoil and seeded with native plants.

4. The yards of some nearby residents were cleaned up as part of the reclamation program.

5. The material is "neutral" and poses no problem to water in the area, but collection basis have been installed and the area will be monitored for ten years.

ONGOING RECLAMATION - MIDVALE

1. A 280 acre property located within urban Salt Lake City, Utah.

2. Last operated in 1970.

3. The property was listed as a CERCLA Superfund site during the early 1980's.

4. Extensive offiste residential yard remediations have been completed. Approximately 200 acres of the site is presently being recontoured and capped with liners and topsoil.

ONGOING RECLAMATION - STOCKTON HILL

1. Located near Kingman, Arizona.

2. Last mined in 1912.

3. All shafts and adits were filled. The entire area was returned to approximate original contours, covered with topsoil and seeded with native grasses.

4. Tailings on the site were removed from the drainages and placed in a cell approved by the Arizona Department of Environmental Quality.

BEFORE

AFTER

BULLFROG SITE

1. Bullfrog Mill was last used in 1970-71.

2. Consisted of 50 acres of mill tailings in five separate piles and ponds.

3. All the material was consolidated into one pile, graded in slopes compatible with the surrounding area, covered with topsoil and seeded with native plants.

4. The yards of some nearby residences were cleaned up as part of the reclamation program.

5. The material is "neutral" and poses no problem to water in the area, but collection basins have been installed and the area will be monitored for ten years.

BEFORE

AFTER

CARPENTERTOWN COAL AND COKE COMPANY

1. A coal mine near Pittsburgh, Pennsylvania.

2. Mined out and closed in 1987.

3. The 600 acre site consisted of a refuse disposal area, preparation plant, coal storage areas, rail siding and several mine portals.

4. Reclamation work was started in 1991 and completed in 1994.

5. All mine portals were bulkheaded in 1991 and there has been no water discharge from them, although the mine is completely flooded.

6. All facilities were removed, and all areas were returned to near original contour and revegetated.

BEFORE

AFTER

GOLD HILL PROPERTY

1. A 163 acre property in Tooele County, Utah.

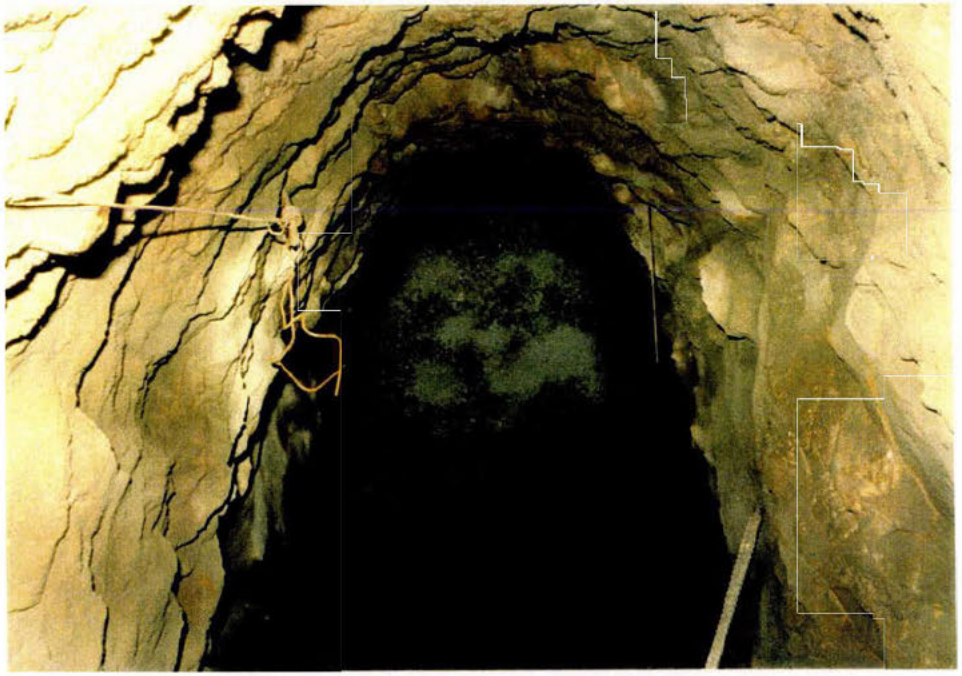
2. Last mined in 1945.

3. Had more than 50 open shafts and adits - two large ore dumps and numerous small dumps consisting of over 60,000 tons.

4. All shafts and adits were filled. The acidic dumps were mixed with limestone for neutralization. The entire area was returned to original contour, covered with top soil and seeded with native grasses.

5. The work was completed in the spring of 1994.

BEFORE



AFTER

MAMMOTH

1. Near Redding, California in the mountains directly above Lake Shasta.

2. The property was last mined in 1925.

3. The mines were dumping over 500 gallons per minute of acid mine drainage into Lake Shasta. The pH was about 3 (occasionally less), in the receiving streams near the mine portals.

4. In 1992, MRRC started a bulkheading program approved by the California Bureau of Water Quality. This was the first bulkheading program of this scope in the U.S.

5. The pH is now neutral (7) in the receiving streams with one exception, where natural acidic water is suspected. The metal load in the streams dumping into Lake Shasta has been reduced by 99% as reported by California Fish and Game.

6. **Total discharge from all 12 of the bulkheaded mine portals has been reduced to less than 20 gallons per minute.**

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

RESOLUTION OF COMMENDATION
1995 EARTH DAY AWARD

WHEREAS, Earth Day is a day appointed for the preservation and reclamation of the environment for present and future generations; and

WHEREAS, environmental reclamation of mining operations plays an important role in the responsible development of Utah's natural resources; and

WHEREAS, Mining Remedial Recovery Company ("MRRC") voluntarily reclaimed an open pit disturbance and more than 50 adits and shafts at the Gold Hill Project in Tooele County; and

WHEREAS, this reclamation was not required by law; and

WHEREAS, restoration of the environment was shown to be a top priority in this endeavor;

NOW, THEREFORE, the Utah Board and Division of Oil, Gas and Mining do hereby recognize

MINING REMEDIAL RECOVERY COMPANY ("MRRC")

for its voluntary contribution to environmental protection and site restoration and present this Earth Day Award on April 26, 1995.

David D. Lauriski, Chairman
Board of Oil, Gas and Mining

James W. Carter, Director
Division of Oil, Gas and Mining

STATE OF INDIANA)
) SS:
COUNTY OF LAKE)

REPORTER'S CERTIFICATE

I, DOROTHY M. SULLIVAN, Notary Public for said County of Lake and State of Indiana and a competent and duly licensed court reporter, do hereby certify that the foregoing pages were reported by me on Thursday, June 20, 1996.

I further certify that I then and there reported in machine shorthand the proceedings at said time and place; that the proceedings were then transcribed from my original shorthand notes and they comprise a full, true and correct transcript of the U.S. EPA Hearing.

WITNESS MY HAND AND SEAL THIS 26th day of June, 1996.

Dorothy M. Sullivan
DOROTHY M. SULLIVAN
Court Reporter and
Notary Public

My Commission Expires: September 7, 1996.

U.S.S. Lead Refinery, Inc.
Public Hearing, East Chicago, Indiana
June 20, 1996

Good evening, my name is Mirtha Capiro. I am an enforcement officer with the United States Environmental Protection Agency (or U.S. EPA) in Chicago. I am also the project manager for the U.S.S. Lead Refinery, Inc. site. I would like to thank everyone from the audience for attending our hearing this evening. This evening, I would like to read some paragraphs of my speech for the transcript. Then, I would also like to show for the transcript some slides illustrating, in detail, the subject that I will be discussing this evening.

U.S.S. Lead is subject to the requirements of a November 18, 1993, Order from U.S. EPA for implementing a corrective action program under the Resource Conservation and Recovery Act (or RCRA) to address contamination on and off-site the facility. Although no longer in operation, U.S.S. Lead is subject to the requirements for implementing a RCRA corrective action program until it is able to demonstrate its inability to pay for cleanups. In addition, U.S.S. Lead is subject to the requirements of the Indiana Department of Environmental Management for closure of three hazardous waste piles.

Under the U.S. EPA order, U.S.S. Lead has been required to initially conduct interim measures and later conduct a facility investigation to evaluate the contamination impacting the areas outside the facility such as communities and wetlands. If necessary, additional interim measures may be implemented at any time under the RCRA corrective action program. In 1994, USS Lead conducted an initial interim measure to control soil dust and runoff from areas of contaminated soils that had been exposed during building demolition activities. In 1992, prior to demolition activities, U.S.S. Lead had removed the contents of the waste piles formerly located in the building complex area and

sent them off-site.

As part of additional interim measures for U.S.S. Lead, U.S. EPA is presently proposing a partial remedy for the site that includes the designation of a CAMU. Interim measures are a way of expediting protection of human health and the environment and are only a partial remedy. Therefore, the U.S. EPA would not normally undergo a public comment period. However, the U.S. EPA is requesting public comments on the proposed partial remedy for U.S.S. Lead because of the CAMU designation it includes. Consequently, the U.S. EPA has issued a Statement of Basis for U.S.S. Lead as part of its public participation responsibilities for designation of a CAMU under RCRA. The CAMU is an area within the facility that is designated for the management of remediation wastes. The CAMU for U.S.S. Lead will contain remediation wastes from the site and will facilitate the closure of three waste piles which are subject to the regulations from the Indiana Department of Environmental Management.

Now, I would like to show some slides illustrating the details of U.S. EPA's proposed partial remedy and other remedy alternatives that were evaluated.

SLIDE #1
USS Lead is located in a meander from the north bank of the Grand Calumet River, on the west side of the Kennedy expressway. This facility is a former secondary lead smelter for lead reprocessing from automobile batteries.

SLIDE #2
The site has 79 acres and only 25 acres have been dedicated to operations. Most of the buildings that were dedicated to facility operations have been demolished and the building foundations have been left in place. There is an inlet canal at the site that was connected to a former facility's outfall.

Four types of wastes were generated as a result of the smelting operations: blast furnace slag which was stored in the south area, calcium sulfate sludge from sulfuric acid treatment which was stored in the two waste piles located outside the Old Silver Refinery Site and the Change House, lead-containing dust emitted by the blast furnace stack which was also stored in the waste pile located inside the Tank House building, and battery case chips collected in the northwest area of the site. The contaminants from the waste at the site includes arsenic, barium, cadmium, chromium, selenium, mercury, and lead, this last having the highest concentrations.

SLIDE #3

The contamination at the site has not been fully characterized. However, U.S.S. Lead has offered to U.S. EPA some preliminary lead data it collected in 1993 for the top 6-inches of soil at areas at the site. As you can see, the lead contamination in soils at the site is widespread and mostly above 5,000 mg per kg, ranging up to around 250,000 kg per kg or 25 per cent lead.

SLIDE #4

The nearest residential area is located approximately half mile to the north of the site. An U.S. EPA inspection report dated October 15, 1985, indicates that there are elevated lead levels in soils in the vicinity of the north of the site. As I mentioned during my introduction, U.S.S. Lead is required to conduct a facility investigation upon completion of the proposed partial remedy under interim measures that I am discussing this evening. The facility investigation will be conducted to determine the contamination present outside the facility that may be related to U.S.S. Lead's past activities. The facility investigation will include determining the impact of contamination on nearby communities, the Grand Calumet River, and other nearby areas.

SLIDE #4A

I would like to take the opportunity to correct a typographical error on page 5 of the Statement of Basis: at six off-site locations in this area, the lead levels were incorrectly stated as 11,000 mg per kg instead of the correct figure of 1,100 mg per kg lead.

SLIDE #5

This is the extension of the 100-year flood plain at the site.

SLIDE #6

A Habitat and Wetland Delineation study has been conducted at the site. 39.8 acres of jurisdictional wetlands have been identified at the site. They include the habitat areas of Dune and Swale, Savanna, Scrub Shrub, and Marsh.

SLIDE #7

The U.S. EPA has evaluated three alternatives for the implementation of interim measures at the facility:

-Alternative 1: Removal, consolidation, and on-site disposal

-Alternative 2: Removal, on-site treatment, and off-site disposal

-Alternative 3: Removal, off-site treatment, and off-site disposal.

As I mentioned in my introduction, interim measures are a way of expediting the protection of human health and the environment and are only partial remedies.

SLIDE #8

In my next four slides I will describe the common elements for all the alternatives.

Some of the common elements include removal of lead slag, battery case chips, and the most contaminated soils with lead levels equal to or greater than 500 mg per kg of lead. Please note that the removal of contaminated soils will not be based on human and ecological risk-based cleanup levels since it is only intended to

address removal of "hot spots" as part of interim measures. Also, the sediments from the inlet canal will be characterized and the heaviest contamination will be removed. In addition, the of sewer lines will be plugged or capped.

SLIDE #9
Air monitoring will be conducted during the implementation of the interim measures.

SLIDE #10
The three alternatives will include ecological habitat protection. The U.S. Army has issued a permit to U.S.S. Lead in relation to implementation of the interim measures. The permit includes the construction of an earthen berm around impacted wetlands and a revegetation plan for the affected area.

SLIDE #10 A
I would like to take the opportunity to point out an amendment to Section F of the Statement of Basis entitled "Summary of Alternatives", pages 7, immediately after line 10th. The amendment consists of a second bullet that will read: "Comply with all requirements of the U.S. Army Nationwide #38 Section 404 permit".

SLIDE #11
Also common to the three alternatives, the Marsh Wren and the Franklin Ground squirrel have been identified as Federal candidate species that may potentially be affected by the interim measures activities at the site. Therefore, the interim measures will be conducted ensuring the protection of these species.

SLIDE #12
Now, I would like to describe each alternative in detail. Alternative 1 includes the removal activities I described as common element, consolidation, and disposal in a CAMU. The

initial phase for CAMU construction includes an area of 7 acres. A subsequent expansion phase will include 7 additional acres extending to a parcel west of the initial CAMU and a smaller parcel to the north. This phased expansion will allow additional capacity for remediation wastes as needed for an approximate total capacity of 100,000 cubic yards. The use of the CAMU will allow the on-site disposal of remediation wastes from removal activities and will facilitate the closure of the three waste piles subject to IDEM requirements. Also, contamination from areas outside the site related to U.S.S. Lead's past activities may be placed in the CAMU only with the approval by U.S. EPA.

SLIDE #13

The design for the CAMU includes the following: a perimeter slurry wall, approximately 3 feet wide and 33 to 43 feet deep, that keys into the Wadsworth Till, an inward hydraulic gradient, groundwater monitoring, and an engineered cover.

SLIDE #13A

This slide illustrates some of the CAMU design components: a perimeter slurry wall, wells from groundwater system, and an engineered cover.

SLIDE #14

30-year post-closure care monitoring will be provided for the CAMU, in accordance with U.S. EPA requirements, and for the three waste piles contained in the CAMU, in accordance with IDEM requirements.

SLIDE #15

The CAMU proposed by U.S.S. Lead should meet the criteria for CAMU designation under U.S. EPA regulations. The CAMU designation should address public comments received during the public comment period.

SLIDE #16

-Alternative 2: Removal, on-site treatment, and off-site disposal.

Under this alternative, removal activities described earlier as common elements will be performed. Upon excavation, wastes will be g treated by stabilization on-site and later sent off-site for disposal.

SLIDE #17

-Alternative 3: Removal, off-site treatment, and off-site disposal.

Under this alternative, removal activities described earlier as common elements will be performed. Upon excavation, wastes will be sent off-site for stabilization treatment and disposal.

SLIDE #18

I will now provide a summary of the evaluation of the alternatives I have described based on the technical, human health, environmental, and institutional criteria.

TECHNICAL

For the Technical criteria we measured performance, reliability, implementability, and safety.

-Performance

Performance is evaluated through effectiveness and useful life. Alternatives 2 and 3 will not offer long-time effectiveness because the concentrations of metals, specially lead concentrations up to 500 mk per kg of lead, would remain indefinitely susceptible to leaching into groundwater. As I pointed out earlier, the level of 500 mg per kg of lead is not a level selected based on health and ecological risk assessment information. It is rather a "removal level" to address "hot spots" under the interim measures. Alternative 1 will remain effective over the long-term provided that the integrity of the cover and the slurry wall is well maintained.

SLIDE #18 a

I would like to point out an amendment to Section G.1. of the Statement of Basis, page 10, paragraph 2, first sentence. The first sentence will be revised from: "Reliability of the proposed partial remedy is evaluated through Operation and Maintenance requirements and demonstrated reliability" to "Reliability of the proposed partial remedy is evaluated through Operation and Maintenance requirements, demonstrated reliability, and the toxicity, mobility, and volume of the contaminants".

BACK TO SLIDE #18

-Reliability

Reliability of the proposed remedy is evaluated through Operation and Maintenance requirements and demonstrated reliability. Alternative 1 would not reduce the toxicity of the contaminants, but would significantly reduce their mobility by means of a cap, slurry wall, and inward hydraulic gradient. Neither Alternatives 2 and 3 meets this criterion because neither involves Operation & Maintenance. Alternatives 2 and 3 do not reduce the mobility nor the toxicity of the contaminants below excavated depth at levels up to 500 mg per kg of lead.

-Implementability

Implementability is evaluated through its constructability and the time required for implementation. Alternatives 1 and 2 would be completed in 1 to 2 years. Alternative 3 would be completed in 1 year.

-Safety

Safety of the proposed remedy is evaluated for workers, nearby communities, and the local environment. Alternative 3 poses some risks with regards to off-site transport of remediation wastes. There are no risks associated with Alternatives 1 and 2.

HUMAN HEALTH

For the Human Health criteria, U.S. EPA measured the ability to mitigate risks to humans or to the environment by exposure to

contaminants. While all alternatives meet this criteria, Alternatives 2 and 3 will not mitigate the leaching of contaminated soils of up to 500 mg per kg of lead.

ENVIRONMENTAL

The U.S. EPA measured the ability to provide the greatest improvement to the environment over the shortest period of time. Although Alternatives 2 and 3 would be implemented relatively quickly and would provide removal of hot spots, contamination up to 500 mg per kg of lead could leach into the groundwater.

COST ESTIMATE

Cost were greater for Alternative 2 and 3. Alternative 1 maintained its cost effectiveness at the same time it provides long-term monitoring.

INSTITUTIONAL

All Alternatives will meet applicable Federal, State, and local requirements, including the requirements under the U.S. Army as I indicated earlier.

SLIDE #19

Based on the evaluation I presented, the U.S. EPA has proposed Alternative 1 for implementation as part of the Interim Measures at the U.S.S. Lead site.

With this I conclude my presentation.

I would like to mention that at the U.S. EPA table, there is a copy of the ISM Workplan and the Administrative Record that anyone interested can consult this evening. Those materials are also available for public view at the E. Chicago, Gary, and Whiting Public Libraries. At the table there are also copies of the Statement of Basis and the slides I have presented this evening that anyone interested can take.

Also, I would like to mention that representatives from U.S.S. Lead and ENTACT, the contractor for U.S.S. Lead are in the audience this evening. They have set up a table with their material for anyone interested. Also, I would like to thank U.S.S. Lead for providing the various enlarged diagrams and photographs you can see this evening.

Again, thanks for coming this evening.

USS LEAD REFINERY, INC.
EAST CHICAGO, INDIANA

USS LEAD WILL HOST
A **PUBLIC MEETING**
TO DISCUSS THE USS LEAD REFINERY ENVIRONMENTAL RESTORATION
ON SEPTEMBER 23, 1996;
6:00 P.M.;
AT THE RILEY PARK COMMUNITY CENTER

PLANNED AGENDA

1) Site History and Present Status
2) Current Site Activities
3) Planned Future Activities
4) Community Involvement
5) Informal Question and Answer Period

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▶ 1

To [redacted] Non-Responsive PII

Dept EPEM-AWRD Phone #

Fax # 219-581-6745 Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

FAX

Date 09/19/96

Number of pages including cover sheet 2

TO: Mirtha Capiro, HRE-8J
U.S. EPA
Office of RCRA
Region V

Phone (312) 886-7567
Fax Phone (312) 353-4788

FROM: Non-Responsive PII
Mining Remedial Recovery Company
P.O. Box 866
Price, Utah 84501

Phone (801) 472-3385
Fax Phone (801) 472-3384

CC: Non-Responsive PII

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Please accept my apology for not getting you an announcement with our original mailing. I completely failed to include you on the mailing list you supplied.

Please feel free to attend this meeting; but do not feel that you need spend a great deal of time in preparation. This is just an introduction meeting for us; we will be discussing what is going on at the site right now. We will want you to prepare for the more formal meeting to be held after our Approval.

Non-Responsive PII

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SEP 25 1996

HRE-8J

Non-Responsive PII

I am sending you the information you requested at the public meeting that was held by U.S.S. Lead Refinery, Inc. (USS Lead) on September 23, 1996.

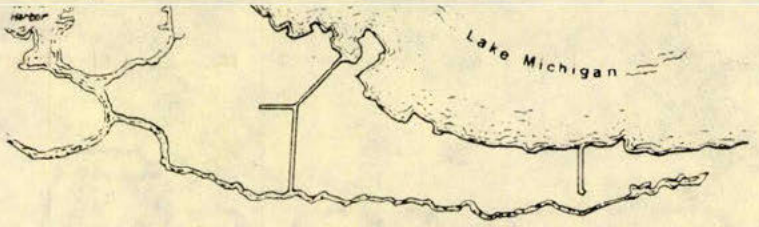
If you have any questions, please do not hesitate to contact me at (312) 886-7567.

Sincerely yours,

Mirtha Capiro
Project Manager/Coordinator
Waste, Pesticides, and Toxics Division

ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	MINN/OHIO SECTION CHIEF	MICHIGAN/ WISCONSIN SECTION CHIEF	ILLINOIS/ INDIANA SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
MC 9/25/96					



GRAND CAL TASK FORCE

at Calumet College

2400 New York Avenue • Suite 303 • Whiting, Indiana 46394
Phone 219-473-4246 • FAX 219-473-4288

® 527

June 24, 1996

U.S. Environmental Protection Agency
Region 5
Atten: Mirtha Capiro (DRE-BJ)
77 West Jackson Blvd.
Chicago, Illinois 60604

Dear Ms. Capiro,

Thank you for conducting a public meeting on the proposed partial remedy for the U.S.S. Lead site in East Chicago, In. As you know from the public hearing, due to dangerously high lead levels in off site soil samples taken in 1985, the Grand Cal Task Force requested that a more complete lead contamination survey be conducted in the residential neighborhoods to the Northwest and Northeast of U.S.S. Lead. We request that more residential neighborhood soil samples be taken, with a focus on areas of population density and/or where children live, play, and go to school. If hazardous levels are documented and the contaminated soils could be ingested or inhaled, then blood lead tests of children and other at risk individuals should be conducted. We request that this testing process begin immediately. If USEPA is not the appropriate agency to require or implement this testing, we would appreciate your timely suggestions for this important public health protection program.

In regard to the proposed CAMU on the U.S.S. Lead site, we commend the agency and other parties for recognizing the need to contain the hazardous materials which for years have been contaminating the air, land, and water resources of East Chicago and Northwest Indiana. It seems that if all material cannot be moved from the site and the area made safe for humans and animals, that the EPA is suggesting that this CAMU design is the safest alternative for immediate protection. The CAMU, however does not extend to the entire contaminated area and even if stage two were implemented and clay walls extended to the till layer in that area, we would still have contaminated groundwater and soils that continue to contaminate the surrounding ecosystem.

We suggest that no soils are left on the ground above the 400 ppm presently designated for residential and industrial sites. This area is basically a filled wetland area and the transport of contaminants to water is almost immediate.

We suggest that soils that are highly contaminated with metals be removed from the site to a recovery process and/or a safe recovery process be carried out at the site before soils are put into a CAMU.

We suggest a more complete pump and treat system be installed and a water treatment plant added to remove lead and other harmful contaminants from the water. Treated water(clean) could be recharged to the water table or discharged to the East Chicago Sanitary District.

We suggest a NPS plan to control and treat runoff be put in practice at the site.

We suggest that a dust control plan be put into practice at the site.

We further suggest that the old underground sewer system be dug up and disposed of off-site or in the CAMU as deemed appropriate. We do not believe that capping and welding will protect the environment from the seeping and transport potential of this old system.

The surrounding community, the Grand Calumet River/Lake Michigan, and the wildlife and ecosystem resources in this area require a more protective remedial action than the plan that has been offered to us in order to avoid continued off site migration.

Thank you for this opportunity to comment. Please give us the opportunity to see your written response to our comments and to those of others who have responded to this notification.

Sincerely,

Non-Responsive PII

Executive Director

Public Notice

The USS Lead Corporation will initiate a Modified Facility Investigation (MRFI), as required by Resource Conservation and Recovery Act (RCRA) regulations at its 5300 Kennedy Avenue facility in East Chicago, Indiana. The first phase of the MRFI investigation will begin on Tuesday, December 16, 1997. The MRFI is being performed as part of an Agreed Order between USS Lead and the United States Environmental Protection Agency.

Information generated during this investigation will be placed in a repository at the East Chicago, Indiana Public Library for public review. Please contact [redacted] of ENTACT at [redacted] or [redacted] of USS Lead ([redacted] with any questions.

V

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

May 12, 1995

Post-Tribune
2268 Broadway
Gary, Indiana 46402
Attn: Legal Advertising

Dear Sir/Madam:

Re: Public Notice of Closure
U.S.S. Lead Refinery, Inc. IND047030226
East Chicago, Indiana

Enclosed is a copy of our public notice regarding closure of the hazardous waste piles located at U.S.S. Lead Refinery, Inc. Please publish this notice, one time, on May 19, 1995.

Please provide a notarized form and clippings showing the date of publication. All charges should be billed to the Department of Environmental Management, Office of Solid and Hazardous Waste Management. If a separate invoice is sent, be sure to include the publication date of the notice on the invoice.

Your timely attention to this matter is appreciated.

Sincerely,

Victor P. Windle

Victor P. Windle, Chief
Hazardous Waste Permit Section
Hazardous Waste Management Branch
Solid and Hazardous Waste Management

Enclosure
cc: Ms. Kathy Prosser, Commissioner (with enclosure)
Ms. Glynda Oakes
Office of External Affairs (with enclosure)
Non-Responsive PII (with enclosure)
Mr. Hak Cho, U.S. EPA, Region V (with enclosure)
Mr. Joel Morbito, U.S. EPA, Region V (with enclosure)
IDEM N.W. Office

PUBLIC NOTICE

The Commissioner of the Indiana Department of Environmental Management has received a total closure plan from U.S.S. Lead Refinery, Inc., 5300 Kennedy Ave., East Chicago, Indiana, U.S. EPA, ID No. 047030226. The company originally notified the U.S. EPA as a hazardous waste storage facility with the following activity: waste pile storage. The plan proposes the elimination of the following hazardous waste activity: waste pile storage.

Pursuant to 329 IAC 3.1-10-1 and 40 CFR 265.112(d)(4), the Commissioner is providing the owner or operator and the public an opportunity to submit written comments and/or request modifications of the plan within thirty (30) days of the date of this notice.

The Commissioner can also, in response to a request, hold a public hearing whenever such a hearing might clarify one or more issues concerning the plan or issues involving releases of hazardous waste or hazardous waste constituents from the facility. The Commissioner will give public notice of the hearing at least thirty (30) days before it occurs.

The closure plan and related background documents are available to the public for inspection and copying at the Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management, 100 North Senate Avenue, Room 1147, Indianapolis, Indiana, from 8:15 a.m. to 4:00 p.m., Monday through Friday. The plan is also available at the East Chicago Public Library, 2401 East Columbus Drive, East Chicago, Indiana during normal business hours.

Persons wishing to comment on the plan should submit such comments in writing to:

Mr. Thomas E. Linson, Chief
Hazardous Waste Management Branch
Solid and Hazardous Waste Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

For additional information, contact Mr. Stephen West at 317/232-3397.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

DATE: May 17, 1995

SUBJECT: First Request for Public Notice Completed
USS Lead Refinery, Inc., in East Chicago, Indiana

FROM: Martha Y. Robinson, WPTD
Information Management Section

TO: Mirtha Capiro, Enforcement
ECAB, Mich/Wis. Section

Following the U.S. EPA procedures for handling public notice, public participation and since no public hearing was requested. We consider this first request completed.

Enclosed are the following materials to be incorporate into the administrative record.

a) Public Notice.
b) Newspaper Tear Sheet & Affidavit (certification).
c) Radio Broadcast.
d) 3-Library Letters and Verification.
e) Interested Party Letter/Package.
f) Certification and Mailing list

Please recycle the copies you don't use. If you have any questions or need further assistance feel free to call me at 6-6141.

Enclosures

cc: J. Ratcliffe, IMS
P. Little, Chief, Enf.
File

PUBLIC NOTICE

U.S.S. Lead Refinery, Incorporated
EPA I.D. # IND 047 030 226

The United States Environmental Protection Agency (U.S. EPA) is accepting comments on the proposed partial remedy for cleanup of contamination at U.S.S. Lead Refinery, Incorporated (USS Lead) and also will be holding a public hearing on such proposed partial remedy. USS Lead is located at 5300 Kennedy Avenue, East Chicago, Indiana. This new public comment period and public hearing are being offered by U.S. EPA in response to requests made by commenters during a previous comment period that ended April 24, 1996. **The new public comment period on the proposed partial remedy begins on May 20, 1996, and ends on June 25, 1996. The public hearing will be held on June 20, 1996, at the Riley Park Community Center, 1005 E. Chicago Avenue, East Chicago, from 6:30 p.m. to 8:30 p.m.**

Written comments received during both the previous and the new comment periods, as well as oral comments received at the public hearing, will be accepted. Written comments on the proposed partial remedy must be postmarked by June 25, 1996, and must be sent to:

U.S. Environmental Protection Agency
Region 5
Att: Mirtha Capiro (DRE-8J)
77 West Jackson Boulevard
Chicago, Illinois 60604

U.S. EPA evaluated three remedial alternatives for the cleanup and identified the proposed partial remedy.

U.S. EPA's recommended alternative is Alternative 1: "Removal, Consolidation, and On-Site Disposal".

A description of the remedial alternatives and the proposed partial remedy is contained in the Statement of Basis. Additional details on the proposed partial remedy is contained in the Interim Stabilization Measures Workplan and other documents found in the Administrative Record file for this facility. The Statement of Basis and the Administrative Record are available for public inspection and copying at the following locations:

East Chicago Public Library
2401 East Columbus Drive
East Chicago, Indiana 46312
(219) 397-2453
Contact: Reference Department

Gary Public Library
220 W. 5th Avenue
Gary, Indiana 46402
(219) 886-2484
Contact: Reference Department

Whiting Public Library
1735 Oliver Street
Whiting, IN 46394
(219) 659-0269
Contact: Reference Department

and

U.S. EPA, Region 5
Waste, Pesticides, and Toxics Division Record Center
77 West Jackson Boulevard, 7th Floor
Chicago, Illinois 60604
(312) 353-5821
Hours: Mon-Fri, 8:30 a.m. - 5:00 p.m.

Subsequent to the close of the public comment period and after conducting the public hearing, U.S. EPA will evaluate all comments received, and will then select the partial remedy. U.S. EPA will document the selection of the partial remedy in the Response to Comments (RTC). The RTC also will contain a summary of all comments received and will specify if any changes were made. Each person who submitted comments will receive a copy of the RTC.

PUBLIC NOTICE

U.S.S. Lead Refinery, Incorporated
IND 047 030 226

The United States Environmental Protection Agency (U.S. EPA) is accepting comments on the proposed remedy for cleanup of contamination at U.S.S. Lead Refinery, Incorporated (USS Lead), 5300 Kennedy Avenue, East Chicago, Lake County, Indiana.

U.S. EPA evaluated three remedial alternatives for the cleanup and identified the proposed remedy.

U.S. EPA's recommended alternative is Alternative 1: "Removal, Consolidation, and On-Site Disposal".

A description of the remedial alternatives and the proposed remedy is contained in the Statement of Basis and further documentation on the proposed remedy is contained in the Interim Stabilization Measures Workplan.

The public comment period on the Statement of Basis begins on March 26, 1996, and ends on April 24, 1996. Written comments regarding the Statement of Basis must be postmarked by April 24, 1996, and must be sent to:

U.S. Environmental Protection Agency
Region 5
Attn: Mirtha Capiro (DRE-8J)
77 West Jackson Boulevard
Chicago, Illinois 66004
(312) 886-7567

If requested, U.S. EPA will hold a public meeting. Subsequent to the close of the public comment period, U.S. EPA will evaluate all comments received and will select the final remedy. U.S. EPA will document the selection of the final remedy in the Response to Comments (RTC). The RTC also will contain a summary of all comments received and will specify if any changes were made. Each person who submitted comments will receive a copy of the RTC. The Statement of Basis and the Administrative Record are available for public inspection and copying at the following locations:

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East Chicago, Indiana 46312
(219) 397-2453
Contact: Non-Responsive PII Reference Coordinator

Gary Public Library
220 W. 5th Avenue
Gary, Indiana 46402
(219) 886-2484
Contact: Reference Department

Whiting Public Library
1735 Oliver Street
Whiting, IN 46394
(219) 659-0269
Contact: Reference Department

and

U.S. EPA, Region 5
Waste, Pesticides, and Toxics Division Record Center
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East Chicago Public Library
2401 East Columbus Drive
East Chicago, Indiana 46312
(219) 397-2453
Contact: Lorelle Brown, Reference Coordinator

Gary Public Library
220 W. 5th Avenue
Gary, Indiana 46402
(219) 886-2484
Contact: Reference Department

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